

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 0
- 1
- 2
- 3
- 4
- 5
- 6

Part 7, Chapter 1: - Mississippi Commission Environmental Quality Surface Water Groundwater Use and Protection Regulations

- A. Annular Space — the space between the borehole wall and the well casing or screen, or the space between a casing pipe and a liner pipe or between two strings of casing.
- B. Applicant — any person who submits an application to obtain a permit to divert, store, or withdraw waters of the state.
- C. Aquifer — a geologic formation, hydraulically connected group of formations, or part of a formation that can yield water to a well or spring
 - (1) Confined Aquifer (Commonly referred to as artesian aquifers) – a permeable geologic layer or zone saturated with groundwater isolated from the atmosphere by impermeable confining layers. The groundwater

in confined aquifers is subjected to pressures higher than atmospheric pressure so that water in a well penetrating the aquifer will rise to some level above the actual top of the aquifer.

- (2) Unconfined Aquifer (Commonly referred to as water table aquifers) – a permeable geologic layer or zone saturated with groundwater at atmospheric pressure. These aquifers are generally not overlain by impermeable confining layers and may be vulnerable to contamination from surface activities or events that discharge pollutants on the ground.

- D. Artesian — groundwater under sufficient hydrostatic pressure to rise above the aquifer containing it.
- E. Beneficial use — the application of water, excluding waste of water, to a purpose that produces economic or other tangible or intangible benefits to the state and its citizens. Such uses include, but are not limited to, diversions or withdrawals for public, industrial, or agricultural use.
- F. Commission – the Mississippi Commission on Environmental Quality, or its designee.
- G. Conjunctive use — the use of two (2) or more sources of water to provide the total supply of water needed for a proposed use.
- H. Days — calendar days, unless specifically indicated otherwise in the body of this regulation.
- I. Decommissioning — the complete and permanent sealing of a well bore to prevent contamination of the aquifer.
- J. Diversion — the act of bringing surface water under control by means of a well, pump, dam or other man-made device for delivery and distribution for a proposed beneficial use.
- K. Domestic use — the use of water for ordinary household purposes, the watering of noncommercial farm livestock, poultry, and domestic animals, and the irrigation of home gardens and lawns.
- L. Established minimum flow — "Established minimum flow" means the minimum flow for a given stream at a given point thereon as determined and established by the commission when reasonably required for the purposes of this chapter. "Minimum flow" is the average streamflow rate over seven (7) consecutive days that may be expected to be reached as an annual minimum no more frequently than one (1) year in ten (10) years (7Q10), or any other streamflow rate that the commission may determine and establish using generally accepted scientific methodologies considering biological, hydrological and hydraulic factors.
- M. Established average minimum lake level — "Established average minimum lake levels"

means the average minimum lake levels for a given lake as determined and established by the commission when reasonably required for the purposes of this regulation. The "average minimum lake level" is that level which shall not be expected to be reached as an average annual minimum no more frequently than one (1) year in ten (10) years, or such other minimum lake level that the commission may determine and establish using generally accepted scientific methodologies considering biological, hydrological and hydraulic factors.

- N. Filter pack — smooth, uniform, clean sand or gravel placed in the annular space between the borehole wall and well screen to prevent sediments from entering the screen.
- O. Fresh water — water having a Total Dissolved Solids (TDS) concentration of less than 1,000 parts per million (ppm).
- P. Geotechnical boring — a hole constructed for the purpose of sampling, measuring, or testing for scientific, engineering, geological or regulatory purposes.
- Q. Groundwater — water occurring beneath the surface of the ground.
- R. Grout — a fluid mixture of cement and water, with additives such as sand, bentonite, or hydrated lime, or a mixture of bentonite and water, capable of producing a water-tight seal, that can be forced through a pipe or placed in an annular space, as required for sealing a well or an annular space to protect against intrusion of contamination.
- S. Halliburton Method — a method of grouting casing whereby slurry is forced down and out the bottom of the casing into the annular space between the borehole wall and the casing. The grouting is continued until slurry returns are obtained at the ground surface.
- T. Impoundment — a man-made dammed, leveed, or diked area designed to store liquids above water levels that would occur under natural conditions.
- U. Landowner — the person, or persons, holding legal title to the surface of the land upon which a withdrawal or diversion of water is located.
- V. MDEQ — the Mississippi Department of Environmental Quality
- W. Mining of an Aquifer — the withdrawal of groundwater from hydrologically connected water-bearing formations at rates determined by the Commission to jeopardize the longterm viability of the aquifer as a source of water for existing and projected beneficial beneficial uses.
- X. Municipal use — the use of water by a municipal government and the inhabitants thereof, primarily to promote the life, safety, health, comfort and business pursuits of the inhabitants. It does not include the irrigation of crops within the corporate boundaries.
- Y. OLWR — the Office of Land and Water Resources of MDEQ.

1
2 Z. Permitted use and “Permittee”
3

- 4 (1) The use of a specific amount of water at a specific time and at a specific place,
5 authorized and allotted by the board for a designated beneficial purpose within the
6 specific limits as to quantity, time, place and rate of diversion and withdrawal; or
7
8 (2) The right to the use of water as specified in the permit, subject to the provisions of
9 Mississippi Code Annotated Section 51-3-5, including the construction of
10 waterworks or other related facilities.
11
12 (3) "Permittee" means the person who obtains a permit from the board authorizing
13 him to take possession by diversion or otherwise and to use and apply an allotted
14 quantity of water for a designated beneficial use and who makes actual use of the
15 water for such purpose, or his successor.
16

17 AA. Person — the state or other agency or institution thereof, any municipality, political
18 subdivision, public or private corporation, individual, partnership, association or other
19 entity, and including any officer or governing or managing body of any municipality,
20 political subdivision, or public or private corporation, or the United States or any officer
21 or employee thereof.
22

23 BB. Plugging — see ‘Decommissioning’.
24

25 CC. Potable Water — water that is suitable for human consumption and meets all primary
26 drinking water standards (Maximum Contaminant Levels) set by the United States
27 Environmental Protection Agency (EPA).
28

29 DD. Potential Sources of Contamination – sites or facilities that use, store, and/or dispose of
30 substances (on site) that, due to their quantity, toxicity, and/or mobility, could impact the
31 water quality of aquifers used for potable water supply. Examples of such sources
32 include, but are not limited to, failing or inadequate individual sewage treatment and
33 disposal systems, tanks used for bulk storage of petroleum products, Class V injection
34 wells, container and drum storage sites, etc.
35

36 EE. Preliminary Assessment Report – a pre-construction assessment of the susceptibility of a
37 public water system well or surface water intake to becoming contaminated by potential
38 sources of contamination within a delineated protection area.
39

40 FF. Protection Area—an area delineated around a public water system wellhead that defines
41 the groundwater capture zone of the well, or an area of concern delineated for a public
42 surface water system intake. It corresponds to the area where efforts should be focused to
43 identify potential sources of contamination that could impact the quality of the
44 groundwater or surface water supply.
45

46 GG. Public Water System –a system for the provision to the public of water for human

consumption through pipes or, after August 5, 1998, other conveyances if such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year. **Note: This duplicates a Mississippi State Department of Health definition. It is included in this regulation to serve as a reminder that wells exempted from regulation by MDEQ because the surface casing diameter is less than six (6) inches, may still be regulated by the Mississippi State Department of Health if they are part of a Public Water System.**

HH. Riparian — pertaining to the bank of a natural watercourse or lake.

II. Surface casing — that string of casing in any water well having the greatest outside diameter, regardless of whether the top of the casing is at or below ground level.

JJ. Surface water — water occurring on the surface of the ground

KK. Transmissive unit — a saturated permeable geologic unit that can transmit significant quantities of water under ordinary hydraulic gradients.

LL. Tremie pipe — a device, usually a small-diameter pipe, that carries grout or other material to the bottom of a borehole or casing and that allows pressure grouting from the bottom up without introduction of air pockets.

MM. Watercourse — any natural lake, river, creek, cut, or other natural body of fresh water or channel having definite banks and bed with visible evidence of the flow or occurrence of water, except such lakes without outlet to which only one (1) landowner is riparian.

NN. Water table or unconfined aquifer — the upper limit of the portion of the ground wholly saturated with water at atmospheric pressure.

OO. Waters of the state — all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, and all other bodies or accumulations of water, surface and underground, natural or artificial, situated wholly or partly within or bordering the state; except lakes, ponds or other surface waters which are wholly landlocked and privately owned, and which are not regulated as waters of the United States under Section 404 of the Clean Water Act.

PP. Well or “water well” — a hole that is drilled, driven, bored, excavated, or otherwise penetrated into the ground to access, evaluate and/or withdraw ground water. For purposes of this regulation, this definition does not pertain to wells constructed for the purpose of disposal of fluids or other materials.

(1) Abandoned Well — a well that has not been used within the preceding twelve month period, or one that has had the pump disconnected and/or removed for reasons other than maintenance, repair, or replacement.

- 1 (2) Dewatering Well — a well used for temporary removal of surface water or
2 groundwater to facilitate construction or mining operations, or for permanent
3 protection of a structure or activity from the effects of surface water or
4 groundwater.
5
- 6 (3) Monitoring Well — a well used to obtain data on the quality of water in an
7 aquifer system or at specified depths and locations related to a potential source of
8 pollutant.
9
- 10 (4) Observation Well — a well used primarily for measuring the water level in an
11 aquifer.
12
- 13 (5) Recovery Well — a well constructed for the purpose of recovering undesirable
14 groundwater for treatment or removal of contaminants.
15
- 16 (6) Relief Well — a well constructed to provide pressure relief from an artesian
17 aquifer or from excessive head differentials in water table aquifers.
18
- 19 (7) Replacement Well — a well drilled to replace an existing well that has become
20 unusable, provided the new well meets the requirements set forth in these
21 regulations.
22
- 23 (8) Standby Well — a well that can be placed in operation to withdraw water but is
24 only used when water is temporarily unavailable from the primary source or
25 sources because of mechanical failure, maintenance, or power failure.
26
- 27 (9) Test Well — a well drilled to explore for groundwater for a water supply well.
28
- 29 (10) Underground Discharge Well -- a well in which the casing terminates at a
30 discharge head located below the frost line.
31
- 32 QQ. Well Completion — term used collectively to refer to both the drilling and developing
33 phases of well construction. For the purpose of reporting requirements established in this
34 regulation, a distinction is made between completion of drilling and completion of well
35 development:
36
- 37 (1) Completion of drilling — the date that drilling is completed and the drill rig is no
38 longer required at the site.
39
- 40 (2) Completion of well development — the date that the well is fully functional and
41 ready to provide water for its designated beneficial use, including having met any
42 applicable water testing requirements.
43
- 44 RR. Withdrawal — the act of bringing groundwater under control by means of a well, pump,
45 or other man-made device for delivery and distribution for a proposed beneficial use.
46

Source: Miss. Code. Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 1.2 Permitting

A. Scope and Applicability - All water, whether occurring on the surface of the ground or underneath the surface of the ground, has been declared by statute to be among the basic resources of this state and subject to this regulation governing control, development, and use of water for all beneficial purposes. No person who is not specifically exempted by statute and this regulation shall use water without having first obtained a permit as provided herein and without having otherwise complied with the provisions of this regulation and any applicable permit conditions. Any person committing resources toward the construction of a withdrawal/diversion point prior to obtaining a water use permit shall do so at their own risk and shall not use water obtained through operation of such withdrawal/diversion point without having first obtained a permit for such use. Measures set forth in this regulation have been promulgated by the commission to effectively and efficiently conserve, manage, protect and utilize the water resources of Mississippi. In order to protect and preserve the groundwater resources of the state, the Commission may declare that mining of an aquifer is occurring in any area of the state where withdrawal of groundwater is adversely affecting the quality or quantity of water available for beneficial use; is adversely affecting other natural resources of the state that are either hydrologically interconnected with the aquifer, or are dependent upon discharges from the aquifer as a source of water; is posing a threat to the health, safety, or general welfare of the public by jeopardizing sustainable sources of water; or is posing a substantial threat to the long-term viability of the aquifer as a source of groundwater. The Commission may also designate and delineate “special water use areas” where water resources including surface water, groundwater, or both are inadequate to meet present or reasonably foreseeable needs. However, the lack of a specific Commission declaration, designation, or delineation of a “special water use area” will in no way diminish the authority of the Commission to issue necessary orders, or of the Permit Board to deny permits found to be contrary to the public interest, to attach conditions to issued permits as required, or to take any other action with regard to an individual permit or application for permit as set forth in other sections of this regulation. If the Permit Board takes such an action in the absence of a specific Commission declaration, designation, or delineation of a “special water use area,” the Permit Board will specify the scientific or other public policy basis for its action in the minutes of the Permit Board meeting and, where applicable, within the permit document itself.

B. Designation of Special Water Use Areas - The Commission shall issue a water use warning or declare and delineate a water use caution area for any area of the state where existing water resources, including surface water, groundwater, or both, are inadequate to meet present or reasonably foreseeable needs; or if mining of an aquifer is occurring. Under normal circumstances, the Commission will not designate a water use caution area without first attempting to address a problem through the water use warning procedure. The water use warning procedure generally involves the regulated public, stakeholders, and other interested parties and organizations in a collaborative effort to formulate a plan and timetable to resolve the problem and seeks a cooperative, voluntary approach to plan

1 implementation. However, the decision whether to issue a water use warning or, instead,
2 to declare a water use caution area, shall be made pursuant to the criterion stated in Miss.
3 Code Ann. Section 51-3-11(2)(a) and (3)(a) as to whether time allows the development of
4 a solution through the water use warning process or prompt and immediate action is
5 required to protect the resource, thus requiring the declaration and delineation of a water
6 use caution area.

7
8 (1) Water Use Warning Area – Mississippi Department of Environmental Quality
9 monitors water levels and water quality parameters in aquifers at regular intervals
10 and utilizes data from stream gaging stations, water quality monitoring stations,
11 reports of other state and federal agencies, and historic stream flow records on
12 surface waters to assess the quality and availability of water for present and
13 projected beneficial uses in various regions of the state. The Commission may
14 issue a water use warning when analysis of available scientific data identifies
15 unacceptable trends that may lead to possible adverse long-term conditions
16 affecting the water resources of the state. Actions that may be taken after a water
17 use warning is issued include, but are not limited to, the following:

- 18
19 (a) Coordinating with the permit holders, political subdivisions, and water
20 management districts within the area to develop a plan and
21 implementation schedule for alleviating or correcting the conditions, if
22 possible, or to safeguard supplies of water for highest priority uses if
23 necessary;
24
25 (b) Sending notice to all permit holders, political subdivisions, and water
26 management districts within the affected area. The notice will describe the
27 conditions that required the issuance of the warning, set forth the proposed
28 corrective measures, request assistance from all recipients in
29 implementing the identified corrective measures, and request voluntary
30 compliance with the proposed corrective measures from the permit
31 holders;
32
33 (c) Reducing permitted volumes of water through either voluntary permittee
34 agreement to implement water conservation practices and a conjunctive
35 use plan, or modification of existing permits to mandate such action by the
36 permittee;
37
38 (d) Establishing a monitoring network to verify effectiveness of
39 implementation of the plan; and
40
41 (e) Requiring metering and/or reporting for all water uses within the affected
42 area, regardless of whether the use may have been previously exempted
43 from regulation and reporting.

44
45 (2) Water Use Caution Area - The Commission may establish, after notice and
46 hearing, a water use caution area when it is evident from analysis of available

scientific data that the actions implemented through the water use warning process will not achieve the desired results in a timely manner; or when analysis of available scientific data indicates prompt and immediate action is required to protect the water resources. Actions that may be taken after a caution area is established include, but are not limited to, the following:

- (a) Developing a plan, including an implementation schedule, to alleviate or correct the conditions;
- (b) Declaring a moratorium on processing new applications for groundwater withdrawal or surface water diversion permits in the caution area;
- (c) Reducing permitted volumes of water through modification of existing permits and issuance of orders by the Commission to restrict water usage in the affected area; and
- (d) Requiring metering and water use reporting for all wells and/or diversion points in the area.

If the Commission orders the establishment of a water use caution area, the Commission shall, within one hundred twenty (120) days following entry of the order, adopt regulations consistent with Miss. Code Ann. Title 51, Chapter 3 and commensurate with the necessary degree of control pursuant to its regulatory authority in Miss. Code Ann. Section 51-3-25.

- C. Basic Requirements - No person may initiate use of groundwater or surface water, or commence construction of a surface water impoundment until an appropriate groundwater or surface water use permit, or a surface water permit for storage or use of water from an impoundment as required by Miss. Code Ann. Section 51-3-39 paragraph (1)(c), has been issued by the Permit Board, or its designee. This requirement does not apply to properly authorized emergency situations discussed in Rule 1.2.K-Emergency Authorizations, to exempted surface water diversions discussed in Rule 1.3.A or to exempted groundwater withdrawals discussed in Rule 1.4.A. Applications for use of groundwater or surface water must meet the following requirements in order to be considered for approval by the Permit Board:

- (1) The application must completely and accurately describe the purpose for the proposed use of water;
- (2) Such use must not be prohibited by state or federal statutes or regulations; and
- (3) The proposed source of water must be free of Commission-imposed restrictions that preclude processing of the application.

- D. Content of Applications and Owner Responsibilities - The applicant shall submit a completed application to MDEQ, on forms prescribed by the Commission, for each separate withdrawal or diversion point. Where mobile pumps are proposed for use in the

diversion of surface water, a separate permit will be required for each quarter-quarter section from which water is to be diverted. For irregularly shaped sections, MDEQ will determine on a case-by-case basis the number of permits required.

Applications shall be completed using maximum volume of water required, estimated dates for initial use of the water, and estimated values for withdrawal or diversion rates. MDEQ may request additional information from the landowner/applicant, if the submitted form lacks sufficient information for processing. All permit applications, including maps and aerial photographs shall become the property of MDEQ.

(1) Maps — Applications shall be notarized and accompanied by a suitable map.

(a) Submitted maps may be photocopies of United States Geological Survey quadrangle maps, photocopies of county maps, aerial photos, or other types of maps, provided sufficient detail is included. Details commonly required include section lines, townships and ranges, and (if nearby), highways and county roads, large bodies of water such as rivers, streams, lakes, etc., utility rights-of-way, and communities. The map must be of suitable detail for locating the well / diversion point and any irrigated lands or ponds on a USGS quadrangle map.

(b) Maps must show location of well/diversion point applied for and, if applicable, all land being irrigated, in use as fish ponds, or flooded for wildlife habitat. One map may be used to indicate locations of several wells/diversion points and several tracts of land. However, the tracts of land must be designated on the map to indicate which well/diversion point supplies water to each tract. If two or more wells/diversion points provide water to the same tract of land, the overlapping area must be indicated, or an imaginary boundary line must be drawn to divide the tract into areas served by each well/diversion point.

(2) Fees – A fee of ten dollars (\$10.00) must accompany each permit application. A separate application is required for each new well or diversion point. If more than one application is submitted at one time, a single check, money order, or electronic payment may be sent for the total amount of the application fees. **DO NOT SEND CASH!**

(3) Preliminary Assessment Report – For proposed regulated wells or surface water intakes that will be part of a public water supply system, MDEQ will be responsible for preparation of a Preliminary Assessment Report (PAR) addressing the suitability of the proposed well site or diversion point to supply a source of safe drinking water. The assessment will consider the inherent vulnerability of the intended source water aquifer or surface water body as well as the identification and proximity of potential sources of contamination, including any improperly abandoned (unplugged) wells, to the proposed site. Final approval of a groundwater withdrawal permit or

1 surface water diversion permit by the Permit Board, or its designee, will
2 be based upon the findings of the preliminary assessment as to the
3 suitability of the site, without exposure to higher than normal risk, for a
4 public water system well.
5

- 6 (4) Publication of Intent — When MDEQ accepts the completed application for a
7 permit, MDEQ will furnish the landowner/applicant a prepared notice of
8 intent to use waters of the state along with instructions for publishing the
9 notice. The landowner/applicant shall publish the notice of intent one time
10 in a newspaper of general circulation in the county in which the proposed
11 well/diversion point will be located. The landowner/applicant must pay the
12 expense of the publication and must direct the newspaper to forward a
13 proof of publication to MDEQ.
14

- 15 E. Issuance or Denial - MDEQ may hold a public hearing regarding any application. The
16 application and results of the public hearing will then be presented to the Permit Board,
17 or its designee. The Permit Board will either issue or deny the permit, and that decision
18 will be effective as of the date the action is taken.
19

20 The Permit Board may deny a permit or issue a permit for less than the requested
21 withdrawal rate or volume if, in the opinion of the Permit Board, the use is not for a
22 beneficial purpose; or such use would adversely interfere with existing permitted uses; or
23 such use would be in conflict with the public interest. Any permit issued may contain
24 such conditions (Rule 1.2.J) as the Board deems necessary to assist MDEQ in
25 management of the water resources of the state. If action authority for a permit
26 application has been delegated by the Permit Board to MDEQ Staff, the permit action
27 may be taken according to Permit Board regulations regarding delegation of permit action
28 authority.
29

30 The Permit Board may issue a permit for a beneficial use that constitutes mining of an
31 aquifer only if it finds that such use is essential to the safety of human life and property;
32 or the landowner/applicant:
33

- 34 (1) Provides written assurance to the Permit Board that the requested use will be
35 temporary,
36
37 (2) Submits a viable plan and acceptable time schedule for acquiring the required
38 water from another source which will not result in mining of any other aquifer;
39 and
40
41 (3) Submits an annual report, net worth statement, or other documentation, as may be
42 required by the Permit Board, to demonstrate financial ability to develop the
43 proposed alternate water supply. Once a permit is issued, MDEQ will provide the
44 permittee a copy of the permit document, which shall constitute authorization to
45 begin the use of the waters of the state.
46

1 F. Duration of Permit.

- 2
- 3 (1) Construction Period – For public water supply wells, construction must be
- 4 initiated within two (2) years after the water use permit is issued or the permit will
- 5 be null and void without further action by the Permit Board. For all other water
- 6 uses, except as stated below, if well/diversion system construction has not begun
- 7 within one year after a permit is issued by the Permit Board, the permit will be
- 8 null and void without further action by the Permit Board. In such cases, the
- 9 landowner/applicant will have to reapply and follow the same procedures required
- 10 for the original application. The Permit Board may grant variances from this
- 11 requirement, if the landowner/applicant can demonstrate to the Permit Board that
- 12 mitigating circumstances dictate the need for delaying the onset of construction
- 13 beyond the one year limit.
- 14
- 15 (2) Expiration – Water use permits normally will be issued for a period of ten (10)
- 16 years. Longer terms may be permitted for certain public entities in order to assure
- 17 reasonable amortization of capital investment in water-related equipment. Such
- 18 entities are limited to municipalities, counties or other governmental subdivisions,
- 19 public utilities, or publicly regulated utilities. Shorter terms may be permitted
- 20 when the Permit Board determines that such terms are necessary to protect the
- 21 public interest.
- 22
- 23 (3) Reissuance –
- 24
- 25 (a) Notification – Six months prior to the expiration date of the permit,
- 26 MDEQ will send, by certified mail to the address of record in the permit
- 27 file, a notice to the landowner/permittee informing him of the requirement
- 28 to re-apply in order to maintain the right to use water under the permit. An
- 29 application form and instructions for submitting the application will be
- 30 included with the notice. However, failure by MDEQ to provide such
- 31 notice shall not relieve the landowner/permittee from the legal.
- 32
- 33 (b) Application – When MDEQ accepts a completed application for
- 34 reissuance, the applicant must publish a notice of intent to continue the
- 35 permitted use and assure that the publisher provides proof of publication
- 36 to the MDEQ. The Permit Board will then reissue the permit, unless the
- 37 Permit Board determines such continued use is contrary to the public
- 38 interest. The Permit Board may change the conditions of the permit at
- 39 reissuance upon finding that such a change would be in the public interest.
- 40
- 41 (c) Termination – If the permittee fails to submit an application for reissuance
- 42 prior to the expiration of the permit, the right to use the water described in
- 43 the permit shall automatically terminate upon the expiration date. If
- 44 processing of a completed application received prior to the expiration date
- 45 extends beyond the expiration date, the permit will remain in effect until a
- 46 final decision on reissuance is made by the Permit Board.

1
2 G. Permit Modification –
3

4 (1) Actions Requiring Modification – A permit may be modified for any of the
5 following reasons:
6

- 7 (a) Any change in the beneficial use of, and/or the volume of, water
8 withdrawn from a well or diverted from a surface water body.
9
10 (b) Any change in location of a surface water diversion point.
11
12 (c) Any change in permit parameters requested by the landowner/permittee
13 such as change of ownership, change of permittee, or change of mailing
14 address.
15
16 (d) Any change in permit conditions.
17
18 (e) Any substantive errors in a permit that must be corrected.
19
20 (f) Legislative action or judicial decision.
21

22 (2) Procedures
23

- 24 (a) The landowner/permittee must provide MDEQ a written request for
25 modification for proposed changes as identified in Rule 1.2.G.1.a. and b.
26 above, or written notification of any proposed change in permit
27 parameters as described in Rule 1.2.G.1.c. above.
28
29 (b) Modifications that result from changes in administrative information only,
30 such as names and mailing addresses; or modifications that are required
31 only to correct administrative errors will be presented to the Permit Board,
32 or its designee, for immediate final action.
33
34 (c) The procedure for processing a requested modification for proposed
35 changes in beneficial use, withdrawal volume, or location of diversion
36 point will depend upon the nature and significance of the change:
37
38 (1) A requested modification that involves significant deviations from
39 the conditions established under the original permit may be
40 deemed by the Permit Board to constitute a new activity. If so, the
41 request will be returned to the requestor with instructions to submit
42 a new application.
43
44 (2) A requested modification may be deemed by the Permit Board to
45 require advertisement of a notice of intent to modify the permit. If
46 so, the requestor will be informed of the decision and provided a

1 prepared notice for publication. The requestor shall publish the
2 notice of intent one time in a newspaper of general circulation in
3 the county in which the permitted well/diversion point is located.
4 The landowner/applicant must pay the expense of the publication
5 and must direct the newspaper to forward a proof of publication to
6 MDEQ.
7

8 (3) A requested modification that proposes only minor changes in
9 volume of withdrawal/diversion or location of a diversion point
10 may be processed by the Permit Board, or its designee, without
11 further action being required on the part of the requestor
12

13 (d) MDEQ may hold a public hearing regarding any request for modification.
14 The request and results of the public hearing will then be presented to the
15 Permit Board. The Permit Board will either approve the modification or
16 deny the request, and that decision will be effective as of the date the
17 action is taken.
18

19 H. Revocation. - The Board will normally give the permittee at least sixty (60) days written
20 notice prior to taking any final action to revoke a permit unilaterally, unless such delay is
21 deemed to be contrary to the public interest. Conditions which may lead to the revocation
22 of a permit include, but are not limited to, the following:
23

24 (1) Noncompliance with any condition in the permit.
25

26 (2) Failure by the landowner/applicant to disclose all relevant facts during the
27 application and permitting process, or misrepresentation of any relevant facts by
28 the landowner/applicant/permittee, at any time.
29

30 (3) A determination by the Permit Board that the permit holder is using the water
31 resources of the state in a manner deemed to be contrary to the public interest.
32

33 I. Hearings and Appeals - Any person aggrieved by any initial action of the Permit Board to
34 issue, deny, transfer, modify or revoke a permit may request an evidentiary hearing
35 before the Permit Board regarding the decision. Procedures for hearings and further
36 appeals of Permit Board decisions are set forth in Mississippi Code Annotated Section
37 49-17-29.
38

39 J. Special Conditions. The Permit Board may establish conditions on permits to require:
40

41 (1) Compliance schedules for the accomplishment of certain tasks deemed necessary
42 and appropriate by the Permit Board.
43

44 (2) Compliance schedules for the cessation of use of groundwater for once-through,
45 non-contact cooling purposes, which is subsequently discharged to the
46 environment. NOTE: Facilities that are authorized use of less than 20,000

gallons per day (gpd), or such other small volume as may be approved by the Permit Board, for once-through non-contact cooling will be considered on a case-by-case basis and may not be required to cease such usage.

- (3) Installation of flow metering or measuring devices.
- (4) Installation and mandatory operation of flow restriction devices on flowing artesian wells.
- (5) Future reductions in the volume of water withdrawn or diverted, provided the schedule for such reductions is explicitly outlined in a compliance schedule.
- (6) Reports as necessary to provide data on the volume of water withdrawn or diverted.
- (7) Any other conditions the Board determines to be necessary to protect the public interest.

K. Emergency Authorization - A written authorization for emergency use of water from a well or a surface water diversion point may be granted by the Permit Board, or its designee. An emergency authorization may be issued only when the Permit Board, or its designee, determines groundwater or surface water must be used to safeguard life, property, public safety, or other compelling public interests, and the exigency precludes waiting for the time required to process a normal permit application.

Emergency authorizations will remain in effect only for the time required to process a permit application for the use authorized under emergency conditions, and the written authorization will include a time limit for submittal of the required application. If a complete application is not received by MDEQ within the time limit specified in the emergency authorization, the authorization will automatically stand rescinded.

The emergency authorization does not guarantee that the Permit Board will ultimately issue a permit for such authorized use. If the Permit Board denies the permit, the emergency authorization is rescinded and the previously authorized water usage shall cease unless and until the decision of the Board is reversed or modified on appeal.

L. General Permits - The Permit Board may issue General Permits, following appropriate public notice and comment period. The Public Notice indicating the Permit Board's intent to issue such a General Permit will describe the nature of activities to be covered under the permit, set forth any required notification procedures, and establish documentation requirements for individual projects that may be pursued under authority of the General Permit.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

1 *Rule 1.3 Surface Water Diversions.* All surface water diversions must meet the permitting
2 requirements set forth in Rule 1.2, unless specifically exempted below.

3
4 A. Exemptions – Surface water diversions meeting the following conditions shall not be
5 subject to the permitting requirements of this chapter:

6
7 (1) Diversions when the water is to be used for domestic single-residence purposes.

8
9 (2) Diversions from an existing impoundment not located on a continuous, free
10 flowing watercourse. However, for proposed surface water impoundments, the
11 person intending to acquire the right to store or use water from a reservoir formed
12 by a dam shall obtain a permit for storage or use of water from the impoundment
13 as required by Miss. Code Ann. Section 51-3-39 paragraph (1)(c), prior to
14 commencement of construction of the dam.

15
16 B. Limiting Conditions for Permit Issuance – The intended use of state waters must be
17 beneficial and consistent with the public interest. Surface water conditions which may
18 limit or affect permit usage may include, but are not limited to, the following:

19
20 (1) Established Minimum Flow—Generally, a permittee may not divert a volume of
21 surface water that will cause the watercourse to fall below its established
22 minimum flow. If a watercourse falls below its established minimum flow, the
23 permit holders affected that are consumptive users will be informed that their
24 pumping must be stopped or modified until further notice. Affected permit
25 holders that are municipalities or are non-consumptive users (users that return to
26 the stream substantially the same amount of water that the user diverts, at
27 substantially the same location) have the option of requesting a variance from the
28 minimum flow requirements. The request must be made, in writing, to the Permit
29 Board.

30
31 (a) Municipal Users – The Permit Board may authorize surface water
32 diversions by municipal users resulting in less than the established
33 minimum flow, provided:

34
35 (1) The landowner/applicant presents a study showing the potential
36 effects of the proposed use on the watercourse; and

37
38 (2) The Permit Board determines that such uses will not violate the
39 state's water quality standards (including in-stream uses) or
40 otherwise conflict with the public interest.

41
42 (b) Industrial Users – The Permit Board may authorize surface water
43 diversions by industrial users when flows are at or less than the
44 established minimum flow, provided the permittee:

- 1 (1) Returns water to the stream in substantially the same amount as
2 that removed and the quality of the return water meets the
3 requirements of the State's National Pollutant Discharge
4 Elimination System (NPDES) Permit Program; and neither the
5 diversion nor the return of water will cause or contribute to a
6 violation of the state's water quality standards; and
7
- 8 (2) Returns water in close enough proximity to the diversion point to
9 avoid substantial detriment to water use rights of affected property
10 owners or to the detriment of the public interest. The Permit Board
11 may require the permittee to conduct such studies or to provide
12 such information as it deems necessary to determine the potential
13 effect of the proposed use on the affected ecosystem and on the
14 public interest.
15
- 16 (c) Other Users – The Permit Board may authorize surface water diversions
17 by other users when flows are at or less than the established minimum
18 flow, provided the permittee:
19
- 20 (1) Provides written assurance that water will be returned to the stream
21 in substantially the same amount as that removed and the quality of
22 the return water will meet requirements of the State's National
23 Pollutant Discharge Elimination System (NPDES) Permit
24 Program; and neither the diversion nor the return of water will
25 cause or contribute to a violation of the state's water quality
26 standards; and
27
- 28 (2) Places metering devices on both the intake and discharge devices
29 to measure flow rates of water; and
30
- 31 (3) Reports to MDEQ, at time intervals to be established by the Permit
32 Board, the volumes of water withdrawn and the volumes and water
33 quality analyses of water discharged.
34
- 35 (2) Established Average Minimum Lake Level – The Permit Board may authorize
36 any permittee to use water from a lake or reservoir that falls within the Permit
37 Board's jurisdiction only to the extent that the water level remains above the
38 average minimum lake level, as established by the Commission. The Permit
39 Board, upon affording a hearing to interested parties, may authorize use of such
40 water below the established average minimum level provided the request for such
41 authorization is accompanied by a study which details potential effects of the
42 proposed use on the affected ecosystem and the public interest. The Permit Board
43 may require such additional studies or other information as it deems necessary to
44 protect the public interest.
45
- 46 (3) Pollution Control Regulations – The Permit Board will not authorize any surface

1 water use that will cause a violation of water quality standards as set by the
2 Commission through regulation.

- 3
4 (4) Navigability – The Permit Board will not authorize any surface water use that will
5 impair the navigability of any watercourse identified as a “navigable waterway”
6 under state or federal statute.
7

8 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.
9

10 *Rule 1.4 Groundwater Withdrawals.* All groundwater withdrawals must meet the
11 permitting requirements set forth in Rule 1.2, unless specifically exempted below.
12

- 13 A. Exemptions – Wells for the purpose of groundwater withdrawal meeting the following
14 conditions shall not be subject to the permitting requirements of this regulation:
15

- 16 (1) Wells used for domestic purposes and providing potable water to only one (1)
17 household; or
18
19 (2) Wells with a surface casing diameter less than six inches, except as regulations
20 govern prohibited uses specified in Rule 1.4.D and reporting requirements
21 specified in Rule 1.4.E.
22
23 (3) Relief wells installed to protect the integrity of a structure, such as a dam or levee.
24

25 Note: The fact that a well may be exempt under this regulation shall not relieve
26 the owner of responsibility for complying with other applicable state or federal
27 regulations ; e.g., wells, regardless of size, that are part of a Public Water System must
28 comply with Mississippi State Department of Health Regulations.
29

- 30 B. Prioritization of Beneficial Uses – In areas where conflicts exist between competing
31 interests or demands for surface water or groundwater supplies, or where there is a
32 potential for such conflicts to arise in the future, the beneficial uses identified below will
33 be given priority in permitting decisions, consistent with the provisions of Miss. Code
34 Ann. Section 51-3-7, in the order listed:
35

- 36 (1) Public Supply [including municipal supplies, rural water systems, private water
37 systems, private wells, and institutional uses (such as schools, churches, and
38 military bases)] – Water permits for other beneficial uses may be denied or
39 modified to insure that present and future public supply needs can be met.
40
41 (2) Industrial/Commercial (Including Agricultural and Commercial Livestock Uses) –
42 Beneficial uses of water falling in this category will have equal standing in permit
43 decisions with all other beneficial uses included in this category. Water use
44 permits that are in place will not be modified to satisfy new or increased demands
45 by other users who fall into this same category.

- 1
- 2 (a) Agricultural (including crop irrigation, fish culture, and similar uses.) –
- 3 The applicant may be required to explore conjunctive use of surface water
- 4 as an option and demonstrate efficient use of groundwater through
- 5 implementation of practicable water conservation measures.
- 6
- 7 (b) Industrial (including water for all processes involved in the operation of an
- 8 industrial plant or facility.) – The applicant may be required to explore
- 9 conjunctive use options. Requests for industrial use must include a
- 10 description of water quality needs as well as of water quantity needs. For
- 11 requests without rigid water quality requirements, the landowner/applicant
- 12 may be required to investigate alternative supplies (such as surface water,
- 13 aquifers with poorer quality water, or treated effluent from wastewater
- 14 treatment plants). Industrial users may be required to use the lowest
- 15 quality water available that will meet quantity and quality requirements for
- 16 the intended use.
- 17
- 18 (c) Livestock (including water for commercial cattle, hogs, and other animal
- 19 operations.) – The applicant may be required to explore conjunctive use
- 20 options.
- 21
- 22 (d) Commercial (including hotels, restaurants, water bottling companies,
- 23 campgrounds, and casinos.) – The applicant may be required to explore
- 24 conjunctive use options.
- 25
- 26 (3) Enhancement of Wildlife Habitat and Other Recreational Uses (including water
- 27 used to enhance an area for wildlife and/or waterfowl management; water used for
- 28 irrigation of vegetation other than commercial crops; and other non-essential uses
- 29 for leisure activities.) – Aquifers that provide the principal source of public supply
- 30 in a region will generally not be considered acceptable sources of water for
- 31 beneficial uses that fall into this category. Water use permits that are in place in
- 32 this category of uses may be modified or revoked if necessary to satisfy higher
- 33 priority demands.
- 34
- 35 (4) Other Uses – Uses not falling into one of the above categories will be evaluated
- 36 on a case-by-case basis and permitted, if the use is not otherwise prohibited by
- 37 this regulation and water is available.
- 38
- 39 (5) Fire Protection – While considered a beneficial use of water, fire protection is not
- 40 given a priority ranking. Since fire protection water is used infrequently and only
- 41 for a short duration, permits for this use will be allowed in any area where water
- 42 is available.
- 43
- 44 C. Well Spacing –
- 45
- 46 (1) When deemed appropriate, the Permit Board may require the spacing of new

wells or replacement wells in accordance with the following guidelines to minimize interference issues between wells developed in confined aquifers. The well spacing distances in Table 1 are a function of the transmissivity (T) of an aquifer at a given site and the anticipated discharge or pumping rate (Q) of a proposed well, where the calculated drawdown in the well is limited to fifteen (15) feet of decline over a ten (10) year period of pumping and will be applied as follows, when the Permit Board determines such spacing is needed:

Table 1. Minimum acceptable spacing distances (r) for wells pumping at constant discharges (Q) for a 10-year timeframe with various transmissivity (T) ranges.

Transmissivity (T) ft ² /day	** Discharge Rates (Q) in mgd / Pumping Rates in gpm						
	0.144 100	0.36 250	0.72 500	1.08 750	1.44 1000	1.80 1250	2.16 1500
<1000	2,100 ft	*40,000 ft	*112,000 ft	*162,100 ft	*198,500 ft	*229,200 ft	*250,500 ft
1000—3000	----	1,400 ft	*26,500 ft	*69,400 ft	*116,500 ft	*158,000 ft	*194,100 ft
3000—5000	----	----	4,700 ft	*24,600 ft	*55,400 ft	*91,600 ft	*126,700 ft
5000—7500	----	----	500 ft	5,800 ft	*19,800 ft	*41,800 ft	*67,800 ft
7500--10,000	----	----	50 ft	1,300 ft	6,700 ft	*17,900 ft	*34,800 ft
10,000— 12,500	----	----	----	300 ft	2,200 ft	7,500 ft	*17,100 ft
12,500— 15,000	----	----	----	60 ft	700 ft	3,100 ft	8,200 ft
15,000— 17,500	----	----	----	----	230 ft	1,300 ft	3,900 ft
17,500— 20,000	----	----	----	----	70 ft	500 ft	1,900 ft
>20,000	----	----	----	----	----	200 ft	900 ft

--- Signifies no spacing limitations (r < 50 feet)

* Scenarios that result in distances (r) greater than 10,000 feet are indications of inadequate aquifer transmissivity for the intended pumpage.

** The Permit Board should be consulted regarding minimum spacing recommendations for wells that will pump in excess of 1,500 gpm or 2.16 mgd.

Note: The following steps may prove helpful in using Table 1:

- 1 (a) To determine the minimum acceptable spacing distance between wells,
2 locate the corresponding transmissivity (T) value of the aquifer in the left
3 column of the table and then the anticipated discharge or pumping rate
4 value across the top row of the table. The point in the shaded area of the
5 table where the two values intersect indicates the acceptable spacing
6 distance between wells in the same confined aquifer.
7

8 Example: A new 750 gallon per minute (gpm) well with a discharge rate
9 of 1.08 million gallons per day (mgd) that is scheduled to pump from a
10 confined aquifer with a transmissivity (T) of 9,000 squared feet per day
11 (ft²/day) should be spaced at least 1,300 feet apart from another well using
12 the same aquifer to avoid unacceptable interference.
13

- 14 (b) To determine the maximum acceptable discharge rate (mgd) or pumping
15 rate (gpm) for a confined aquifer, consult the left column of Table 1 to
16 find a comparable transmissivity (T) value for the aquifer being used and
17 the body of the table to locate the distance (r) from the proposed well site
18 to the nearest existing well in using the same aquifer. The corresponding
19 discharge rate (mgd) and pumping rate (gpm) on the top of the appropriate
20 column reflects the maximum acceptable pumpage for the well at the
21 proposed location.
22

- 23 (2) The Permit Board will consider and may require spacing limitations for new wells
24 or replacement wells using aquifers that are not confined under all conditions.
25 Unconfined conditions also may exist in the recharge areas of confined aquifers.
26
27 (3) In cases where no feasible options appear to be available, applicants may make a
28 written request for exemption from the well spacing requirements. The Board will
29 consider such requests on a case-by-case basis and provide a written
30 determination to the applicant.
31

32 D. Considerations and Limitations on Uses of Water
33

- 34 (1) Once-through, Non-contact Cooling Water – In general, the use of large volumes
35 of groundwater for once-through, non-contact cooling purposes is not a beneficial
36 use of groundwater resources and is contrary to principles of water conservation.
37 Use of more than 20,000 gallons per day (gpd) for this purpose is prohibited,
38 regardless of the size of the well or the source of the groundwater, unless approval
39 is obtained from the Permit Board. Proposals to use less than 20,000 gpd will be
40 considered by the Permit Board on a case-by-case basis.
41
42 (2) Uncontrolled Free-flowing Wells – Continuous uncontrolled discharge of
43 groundwater from free-flowing wells is not a beneficial use of groundwater
44 resources, is declared to be waste contrary to principles of water conservation, and
45 may be prohibited by the Commission or the Permit Board, regardless of the size

1 of the well or the source of the groundwater.

- 2
- 3 (3) Maintenance of Water Levels in Surface Water Impoundments for Aesthetic
4 Purposes – A permit shall be required of any person in the business of developing
5 real property for resale who desires to withdraw water from a well, regardless of
6 surface casing diameter that is to be used for maintaining or enhancing an
7 impoundment of surface water primarily for aesthetic purposes. In general, the
8 withdrawal of groundwater to supply water to a surface impoundment that exists
9 primarily for aesthetic purposes is discouraged. The Permit Board may, however,
10 issue a permit for withdrawal of groundwater to supply water to a surface
11 impoundment that is primarily for aesthetic purposes if the Permit Board finds
12 that such use of the groundwater would be in the public interest and that the local
13 availability of groundwater for higher priority uses, as specified in these
14 regulations, would not be excessively adversely affected. In determining whether
15 such use of the groundwater would be in the public interest, the Permit Board
16 shall consider, at a minimum, the following factors:

- 17
- 18 (a) The drainage area providing surface water run-off to the impoundment;
 - 19
 - 20 (b) The permeability of the soils that form the bottom of the impoundment;
 - 21
 - 22 (c) The volume of water required to fill the impoundment;
 - 23
 - 24 (d) The rate of groundwater withdrawal estimated to be required to maintain
25 the level of water in the impoundment at the designed normal pool;
 - 26
 - 27 (e) The potential impacts of the requested groundwater withdrawal on the
28 local availability of groundwater for higher priority uses, as specified in
29 these regulations.

- 30
- 31 (4) Other Uses – The Permit Board may determine that other discharges/withdrawals
32 of groundwater are not beneficial uses, constitute waste, and/or are prohibited to
33 protect the public interest and may deny permits based on such determinations.

34

35 E. Reporting

- 36
- 37 (1) Within 30 days of the drilling completion date, data collected and/or received on
38 the well must be filed with MDEQ by the water well contractor. This data
39 includes, but is not limited to, the following:
- 40
- 41 (a) Any data that differs from the issued permit (i.e. depth, casing diameter,
42 etc.);
 - 43
 - 44 (b) Copies of all borehole geophysical log(s);
 - 45
 - 46 (c) Driller's log;

(d) Drill cuttings (If available)

(e) Pump test information. (If available); *

(f) Analysis of water. (If available). *

* If the well is not developed and completed immediately upon completion of drilling, the pump test information and water analysis shall be submitted by the owner or by the contractor who subsequently completes the well within thirty (30) days of receipt of final report.

(2) Owners and operators of all water wells, regardless of size or use, that produce in excess of 20,000 gallons per day may be required to file an annual report on the volume of groundwater withdrawn each calendar year, and such other requirements as the Commission may deem necessary or appropriate for proper water management. If required, these water use reports shall be filed with MDEQ prior to March 30 of each year on forms prescribed by the Permit Board.

(3) The quantity of groundwater withdrawn must be determined by one of the following:

(a) Flow meters accurate to within ten percent (10%) of meter calibration;

(b) The rated capacity of the pump (for the normal head associated with the well) multiplied by the total time in operation as recorded by an hour meter, electric meter, or log;

(c) The rated capacity of a cooling system multiplied by the total time in operation.

(d) Any other method approved by MDEQ that will provide reliable groundwater withdrawal data.

(4) MDEQ may require the installation of flow meters if data obtained by other means is determined to be inadequate or unreliable.

F. Replacement Wells – A replacement well may be drilled to replace a properly authorized well that has become unusable.

(1) Qualifications – To qualify as a replacement well for any use other than irrigation, aquaculture, or wildlife enhancement the new well must meet all of the requirements set forth in paragraphs a. through d. below. Any proposed well not meeting these requirements will be treated as a new well, and the required application will be processed accordingly. Replacement wells for irrigation, aquaculture, or wildlife enhancement need only meet the requirements set forth in

paragraphs (a) through (c) below provided the water will be applied to the same field or pond served by the original well.

- (a) Will replace a well that will be properly plugged and abandoned within 180 days of completion of the replacement well, unless used by MDEQ for data collection in accordance with paragraph 3 below; and
- (b) Will withdraw water from the same water-bearing formation as the old well; and
- (c) Will supply water for the same beneficial use as the old well; and
- (d) Will be located within a 250-foot radius of the old well.

- (2) Procedure – Construction of a qualifying replacement well does not require prior approval from the Permit Board or its designee. However, the owner of the well to be abandoned must provide MDEQ written notification of the replacement within five (5) calendar days after initiating construction of the replacement well. The notification must clearly state that the new well is a replacement well meeting the criteria set forth in Rule 1.4.F.1.; must include the permit number for the well being replaced; and must provide the name of the licensed water well contractor responsible for construction of the replacement well. The Permit Board, or its designee, will assign an identification number to the replacement well and modify the permit associated with the well to be plugged and abandoned to reflect the change. The identification number for the replacement well will be provided by MDEQ to both the owner/permittee and the water well contractor for use on all subsequent correspondence and reports related to the well. No public notice or fee will be associated with construction of a replacement well.

- (3) Decommissioning of Replaced Well – The well being replaced must properly be decommissioned in accordance with Rule 1.4.G. of this regulation no later than 180 days from the date the replacement well is completed, unless the Executive Director of MDEQ, or his designee, determines that the old well is suitable for conversion to an observation well or monitoring well and the landowner/permittee agrees to retain the well for that use. If such use is determined to be beneficial, a locking cover, sealed plate or other method of securing the well approved by MDEQ shall be provided by the landowner/permittee. If use of the observation well or monitoring well is later discontinued, the landowner/permittee will be responsible for properly decommissioning the well within 180 days of notification by MDEQ that MDEQ's use of the well is being discontinued.

G. Decommissioning Abandoned or Unused Water Wells and Holes

- (1) Applicability – Except as stated in paragraph 2. below, the standards for decommissioning abandoned or unused water wells and boreholes apply to all

1 abandoned water wells and to all boreholes that penetrate water bearing strata or
2 are greater than twenty-five (25) feet in depth including potable water wells,
3 agricultural wells, monitoring wells, observation wells, dewatering wells, relief
4 wells, saline or brackish water withdrawal wells, contaminant recovery wells, heat
5 pump water supply wells and closed-loop system holes, industrial supply wells,
6 rig supply wells, geotechnical boreholes, cathodic protection wells and pilot
7 boreholes.

8
9 All wells and boreholes that penetrate water bearing stratum with a depth of 25
10 feet, or greater, below land surface must properly be decommissioned by a water
11 well contractor licensed by MDEQ. Water wells less than 25 feet in depth below
12 land surface may be plugged by someone other than a licensed water well
13 contractor. However, the same procedures and reporting requirements apply
14 regardless of who plugs the well.

15
16 If approved in writing by MDEQ, properly cased and sealed wells may be
17 provided with a locking cover capable of preventing the entrance of contaminants
18 and used as monitoring wells or observation wells in lieu of abandonment. If the
19 use of an observation or monitoring well is later discontinued by MDEQ, the
20 landowner/permittee shall be responsible for properly decommissioning the well.

21
22 (2) Exemptions – The following types of wells and boreholes are exempt from this
23 paragraph G. Exemption under this regulation does not relieve the owner of
24 the responsibility for identifying and complying with other applicable state and
25 federal regulations.

26
27 (a) Saline water wells associated with enhanced oil and gas recovery
28 operation, brine withdrawal wells, and other types of on-site oil and gas
29 well holes, including Class II wells regulated under the Resource
30 Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6901, *et seq.*

31
32 (b) Class I, III, IV and V injection wells regulated under the
33 Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections
34 6901, *et seq.* and

35
36 (c) Geotechnical boreholes drilled in planned roadbed construction areas
37 where the natural overburden will be removed to within twenty-five (25)
38 feet of the bottom of the hole.

39
40 (3) Types of Abandoned or Unused Wells – A water well may be considered by
41 MDEQ to have been abandoned if its use has been permanently discontinued; if
42 the well has not been used in the preceding 12 months (except for established
43 rotations of pumping equipment between wells related to crop irrigation and
44 instances where the owner has notified MDEQ of an anticipated longer period of
45 nonuse after which the well will be placed back in service); if the pumping
46 equipment has been removed (except for established rotations of pumping

equipment between wells related to crop irrigation); or if the well cannot be repaired. Rig supply holes, geotechnical boreholes, pilot holes, and dewatering holes are considered abandoned immediately upon completion of the project phase for which they are drilled, unless the well is an integral part of the continued operation of the project, such as a pressure relief well or a permanently used dewatering well.

(4) Time Allowed for Plugging – Rig supply wells, pilot holes, and geotechnical boreholes shall be plugged within 30 days after abandonment or cessation of use. All other holes shall be plugged within 180 days after abandonment or cessation of use.

(5) Decommissioning Forms – Abandonment and plugging of water wells and boreholes shall be reported on a decommissioning form approved by and made available from MDEQ. The person or contractor who plugs an abandoned water well or borehole shall submit the decommissioning form to MDEQ within 30 days after completion of the plugging. For irrigation wells located in the MRVA, a copy of the form shall be submitted to YMD at the same time the original is submitted to MDEQ. Reporting the abandonment and plugging of multiple water wells and/or boreholes on one form may be permissible, with prior approval from MDEQ, provided the same decommissioning procedure was used and the location of each water well and/or borehole is clearly identified.

(6) Decommissioning Procedures – The following procedures shall be adhered to in the decommissioning of any water well or borehole for which decommissioning is required under these regulations:

- (a) Grout for all holes shall consist of neat cement, cement grout, cement-bentonite mixture (5-8% bentonite), or bentonite. Bentonite pellets may be added under free-fall conditions for depths not exceeding twenty-five (25) feet, providing pellets are placed in layers not more than five (5) feet deep and tamped into place after addition of each layer. Granulated or pelletized bentonite may be placed to greater depths if introduced through a tremie pipe. Free-fall addition of other types of grout from the surface is prohibited;
- (b) Obstructions shall be removed from the well casing;
- (c) If there is reason to question the physical integrity of the well casing because of the age of the well or the material used for the casing, or there are no records to indicate that the annular space was grouted properly during construction of the well, the driller shall consult with MDEQ before plugging the well. In such instances, MDEQ may require that the casing be perforated to allow the introduction of grout into cavities or voids that may have formed outside the casing; or may require that the casing be removed from the hole prior to grouting;

- 1
- 2 (d) For abandoned water wells in agricultural fields, the casing shall be cut off
- 3 and removed down to a minimum depth of three feet below land surface.
- 4 After plugging, the excavation shall be filled with compacted soil. In other
- 5 areas, not regularly subjected to surface disturbance, the casing shall be
- 6 cut off and removed at least down to the ground surface elevation;
- 7
- 8 (e) Abandoned water wells or boreholes shall be sealed from the bottom of
- 9 the hole to ground surface or the top of the casing using a grout as
- 10 described in paragraph 6.a. above.
- 11
- 12 (f) MDEQ may authorize alternate methods of abandonment and/or
- 13 abandonment by other than a licensed water well contractor, provided the
- 14 results will meet the intent of the regulations. Only detailed written
- 15 requests to utilize an alternate method of abandonment or to abandon a
- 16 well without utilizing a licensed water well contractor shall be considered
- 17 for approval. If approved, MDEQ will provide written authorization to the
- 18 requestor.
- 19

20 H. Installation of Control Devices on Flowing Wells - Control devices that are capable of

21 stopping the waste of water are required on all wells that have a natural free-flowing

22 condition above the ground surface, except for relief wells installed to protect the

23 integrity of a structure.

24

25 MDEQ, upon receiving information about a free-flowing well, will send the landowner a

26 written directive to install a control device on the well within a specified time limit and to

27 operate the device in such a manner as to prevent waste of the water. The landowner shall

28 provide MDEQ written notification when the control device has been installed and the

29 waste of water has ceased. Failure to comply with a directive to install and operate a

30 control device to stop the waste of water may result in enforcement action by the

31 Commission.

32

33 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

34

35 *Rule 1.5 Confidential Information.* Procedures for declaring submitted information

36 confidential and for agency handling of such information are found in Miss. Code Ann. Section

37 49-17-39, Section 51-3-44, and the Commission's Regulations Regarding the Review and

38 Reproduction of Public Records, Chapter 11, Part 1, Chapter 2.

39

40 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

41

42 *Rule 1.6 Enforcement.* Enforcement of these regulations shall be governed by Miss. Code

43 Ann. Section 51-3-49 through 51-3-55, and Sections 49-17-31 through 49-17-43.

44

45 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

46

1 *Rule 1.7 Correspondence and Adequacy of Notice.*

2
3 A. General – All permittees and licensees shall inform MDEQ of any address changes
4 within fifteen (15) days of any change of address, and must readily accept all mail sent to
5 them from the Commission, MDEQ, or the Permit Board.

6
7 B. Registered or certified mail – Registered or Certified Mail sent with proper postage and
8 to the last address provided to MDEQ by the permittee or licensee shall be considered
9 adequate notification of notice served if MDEQ is notified that the mail was delivered
10 and accepted or if the mail is returned as rejected or unclaimed by the addressee.

11
12 C. Refusal to accept mail – Refusal to accept mail from the Commission, the Permit Board,
13 the Department, or its designee, shall be considered a violation of this regulation.

14
15 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq., and 49-17-1, et seq.

16
17 **Part 7, Chapter 2: Mississippi Commission on Environmental Quality Licensing of Water**
18 **Well Contractors Regulations**

19
20 **TABLE OF CONTENTS**

21
22
23 Rule 2.1 Definitions

24
25 Rule 2.2 Applicability

26
27 Rule 2.3 Minimum Requirements for Licensing

28
29 Rule 2.4 Examination

30
31 Rule 2.5 Fees

32
33 Rule 2.6 License Renewal

34
35 Rule 2.7 Continuing Education

36
37 Rule 2.8 Equipment

38
39 Rule 2.9 State Well Reports

40
41 Rule 2.10 Suspension/Revocation of License

42
43 Rule 2.11 Hearings and Appeals

44
45 Rule 2.12 Design Criteria and Construction Standards

1 Rule 2.13 Maintenance and Service Criteria for Public Water Wells

2
3 Rule 2.14 Decommissioning of Abandoned or Unused Water Wells and Boreholes

4
5 Rule 2.15 Enforcement

6
7 Rule 2.16 Correspondence and Adequacy of Notice

8
9 Rule 2.17 Confidential Information

10
11
12 *Rule 2.1 Definitions.* The words and phrases used in this regulation, shall have the
13 following meanings:

- 14
15 A. Annular Space - The space between the borehole wall and the well casing or screen, or
16 the space between a casing pipe and a liner pipe or between two strings of casing.
17
18 B. Applicant - Any person who submits an application to obtain a water well contractor's
19 license.
20
21 C. Approved Education Provider – An organization that offers many educational courses for
22 continuing education and has demonstrated, to the satisfaction of the Department, its
23 qualifications to offer quality continuing education to water well contractors. Approved
24 education providers are not required to submit every course they offer for Department
25 approval.
26
27 D. Aquifer - a geologic formation, hydraulically connected group of formations, or part of
28 a formation that can yield water to a well or spring.
29
30 (1) Confined Aquifer (Commonly referred to as artesian aquifers) – a permeable
31 geologic layer or zone saturated with groundwater isolated from the atmosphere
32 by impermeable confining layers. The ground water subjected to pressures higher
33 than atmospheric pressure so that water in a well penetrating the aquifer will rise
34 to some level above the actual top of the aquifer.
35
36 (2) Unconfined Aquifer (Commonly referred to as water table aquifers) a permeable
37 geologic layer or zone saturated with groundwater at atmospheric pressure. These
38 aquifers are generally not overlain by impermeable confining layers and may be
39 vulnerable to contamination from surface activities or events that discharge
40 pollutants on the ground.
41
42 E. Artesian - Groundwater under sufficient hydrostatic pressure to rise above the aquifer
43 containing it.
44
45 F. Beneficial use - The application of water, excluding waste of water, to a purpose that
46 produces economic or other tangible or intangible benefits to the state and its citizens.

Such uses include, but are not limited to, diversions or withdrawals for public, industrial, or agricultural use.

G. Board or Permit Board – The Mississippi Environmental Quality Permit Board.

H. Certificate of Insurance – Proof of coverage under Contractors Liability Insurance.

I. Commission – The Mississippi Commission on Environmental Quality, or its designee.

J. Committee – The Water Well Driller’s Advisory Committee.

K. Continuing Education Course – A course which has been approved by the Department as meeting the requirements of the regulations for continuing education. Only courses approved by the Department are considered applicable to meeting continuing education requirements, unless the course is presented by an approved education provider.

L. Days - Calendar days, unless specifically indicated otherwise in the body of this regulation.

M. Decommissioning - The complete and permanent sealing of a well bore to prevent contamination of the aquifer.

N. Department or MDEQ – The Mississippi Department of Environmental Quality.

O. Dewatering – The temporary lowering of the groundwater level to facilitate installation of underground utilities, construction of foundations, and various other purposes.

P. Domestic use - The use of water for ordinary household purposes, the watering of farm livestock, poultry, and domestic animals, and the irrigation of home gardens and lawns.

Q. Filter Pack - Smooth, uniform, clean sand or gravel placed in the annular space between the borehole wall and well screen to prevent sediments from entering the screen.

R. Fresh water - Water having a Total Dissolved Solids (TDS) concentration of less than 1,000 parts per million (ppm).

S. Geotechnical Boring - A hole constructed for the purpose of sampling, measuring, or testing the strata encountered for scientific, engineering, geological or regulatory purposes.

T. Groundwater - Water occurring beneath the surface of the ground.

U. Grout - A fluid mixture of neat cement and water, with additives such as sand, bentonite, or hydrated lime, or a mixture of bentonite and water, capable of producing a water-tight seal, that can be forced through a pipe or placed in an annular space, as required for sealing a well or an annular space to protect against intrusion of contamination.

- 1
- 2 V. Halliburton Method - A method of grouting casing in which the slurry is forced down the
- 3 casing and into the annular space until slurry returns are obtained at the ground surface.
- 4
- 5 W. Inactive Status – The status assigned to a license by the Commission to indicate that the
- 6 licensee may not practice well drilling and/or pump installation until the licensee has met
- 7 the requirements of this regulation regarding renewal or reinstatement of the license.
- 8
- 9 X. Incompetency – An action or inaction by a licensee which demonstrates a general lack of
- 10 knowledge or ability to practice water well drilling and/or pump installation.
- 11
- 12 Y. Landowner - The person, or entity, holding legal title to the surface of the land upon
- 13 which a withdrawal or diversion of water is located.
- 14
- 15 Z. Licensee – Any individual who holds a valid Water Well Contractor’s License issued by
- 16 the state, or any company or corporation engaged in the business of water well
- 17 contracting under a license duly issued to a designated principal, or key employee, in the
- 18 company or corporation. Licenses will only be issued to individuals, and a company will
- 19 be deemed to be licensed only if it has a principal or key employee who is licensed.
- 20
- 21 (1) Restricted Licensee – An individual holding a specialty driller’s or pump
- 22 installer’s license who is restricted to performance of only such activities as may
- 23 be specified in the conditions of the license. Typically, restrictions will be placed
- 24 on the licenses of individuals who:
- 25
- 26 (a) only engage in specialized well or borehole construction such as drilling
- 27 geotechnical boreholes, constructing environmental monitoring wells, or
- 28 constructing geo-thermal systems; or
- 29
- 30 (b) only engage in limited aspects of the water well construction business
- 31 such as pump and well equipment installation and service.
- 32
- 33 (2) Unrestricted Licensee – An individual holding a Water Well Contractor’s License
- 34 who is thereby authorized to engage, to the full extent allowed by this regulation,
- 35 in the business of constructing, maintaining, and repairing water wells; installing
- 36 and servicing pumps and related water well equipment; drilling special purpose
- 37 boreholes; constructing monitoring wells; or any other work involving drilling,
- 38 grouting, plugging, abandoning, or decommissioning water wells and boreholes.
- 39 Companies, corporations, or other business entities, that are not individuals, will
- 40 be deemed to have met the licensing requirement if a principal in the firm, or
- 41 other key employee authorized to act for the firm, holds an unrestricted water well
- 42 contractor’s license.
- 43
- 44 AA. Misconduct – A willful or intentional action or inaction by a licensee that is contrary to
- 45 the standard or accepted practice of the industry that would be applied by competent
- 46 professionals, under the same circumstances.

- 1
- 2 BB. Municipal use - The use of water by a municipal government to promote the life, safety,
- 3 health, comfort, and business pursuits of its people. The term does not include irrigation
- 4 of crops that may be planted within the corporate boundaries.
- 5
- 6 CC. Office or OLWR - the Office of Land and Water Resources of MDEQ.
- 7
- 8 DD. Permitted use -
- 9
- 10 (1) The use of a specific amount of water at a specific time and at a specific place,
- 11 authorized and allotted by the Board for a designated beneficial use within
- 12 specific limits as to quantity, time, place, and rate of diversion or withdrawal; or
- 13
- 14 (2) The right to the use of water as specified in the permit, subject to the provisions of
- 15 Mississippi Code Annotated Section 51-3-5, including the construction of
- 16 waterworks or other related facilities.
- 17
- 18 EE. Person - The state or other agency or institution thereof, any municipality, political
- 19 subdivision, public or private corporation, individual, partnership, association or other
- 20 entity, and including any officer or governing or managing body of any municipality,
- 21 political subdivision, or public or private corporation, or the United States or any officer
- 22 or employee thereof.
- 23
- 24 FF. Plugging — See “Decommissioning”.
- 25
- 26 GG. Potable Water - Water that is suitable for human consumption and meets all primary
- 27 drinking water standards (Primary Maximum Contaminant Levels) set by the United
- 28 States Environmental Protection Agency (EPA).
- 29
- 30 HH. Potential Sources of Contamination – Sites or facilities that use, store, and/or dispose of
- 31 substances (on site) that, due to their quantity, toxicity, and/or mobility, could impact the
- 32 water quality of aquifers used for potable water supply. Examples of such sources
- 33 include, but are not limited to, failing or inadequate individual sewage treatment and
- 34 disposal systems, tanks used for bulk storage of petroleum products, Class V injection
- 35 wells, container and drum storage sites, etc.
- 36
- 37 II. Public Water System –A system that provides potable water to the public through pipes
- 38 or, after August 5, 1998, other conveyances, if such system has at least fifteen service
- 39 connections or regularly serves an average of at least twenty five (25) individuals daily at
- 40 least 60 days out of the year. **Note: This duplicates a Mississippi State Department of**
- 41 **Health definition. It is included in this regulation to serve as a reminder that wells**
- 42 **exempted from regulation by MDEQ because the surface casing diameter is less**
- 43 **than six (6) inches, may still be regulated by the Mississippi State Department of**
- 44 **Health if they are part of a Public Water System.**
- 45

- 1 JJ. Pump Installation – The installation of pumps or pumping equipment for water wells,
2 including the removal and re-installation of pumps or pumping equipment for service,
3 repairs, or replacement.
4
- 5 KK. Pumps or Pumping Equipment – Any equipment or materials utilized or intended for use
6 in withdrawing or obtaining water from water wells or surface water diversion points.
7
- 8 LL. Repair of Water Wells – Work on any water well involving re-drilling, deepening,
9 changing casing and screen depths, re-screening, cleaning by use of chemicals, and re-
10 development; or removing and re-installing pumps, pumping equipment, or any related
11 equipment intended to draw water from the well.
12
- 13 MM. State Well Report – A report documenting information related to the drilling of a well or
14 borehole and the development and completion of a water well together with any other
15 data or information required by MDEQ, reported on forms provided by the MDEQ.
16
- 17 NN. Surface casing - That string of casing in any water well having the greatest outside
18 diameter, regardless of whether it is located at or below ground level.
19
- 20 OO. Suspended Status – The status assigned to a license by the Commission to indicate that
21 the licensee has willfully violated provisions of State law or of this regulation so as to
22 endanger himself, others, the environment, and/or the public health.
23
- 24 PP. Test Boring and Coring – the removal and collection of soil samples from the earth by
25 means of augers, core-barrels, spoons, wash casing and bailers for the purpose of
26 obtaining geologic and hydrologic information.
27
- 28 QQ. Tremie pipe - a device, usually a small-diameter pipe, that carries grout or other material
29 to the bottom of a borehole or casing and that allows pressure grouting from the bottom
30 up without introduction of air pockets.
31
- 32 RR. Well or “water well” - a hole that is drilled, driven, bored, excavated, or otherwise
33 penetrated into the ground to access, evaluate and/or withdraw groundwater. For
34 purposes of this regulation, this definition does not pertain to wells constructed for the
35 purpose of disposal of fluids or other materials, but does include:
36
- 37 (1) Abandoned Well - a well that has not been used within the preceding twelve
38 month period, or one that has had the pump disconnected and/or removed for
39 reasons other than maintenance, repair, or replacement.
40
- 41 (2) Dewatering Well - a well used for temporary removal of surface water or
42 groundwater to facilitate construction or mining operations, or for permanent
43 protection of a structure or activity from the effects of surface water or
44 groundwater.
45

- 1 (3) Monitoring Well - a well used to obtain data on the quality of water in an aquifer
2 system or at specified depths and locations related to a potential source of
3 pollutant.
4
- 5 (4) Observation Well - a well used primarily for measuring the water level in an
6 aquifer.
7
- 8 (5) Recovery Well - a well constructed for the purpose of recovering undesirable
9 groundwater for treatment or removal of contaminants.
10
- 11 (6) Relief Well - a well constructed to provide pressure relief from an artesian aquifer
12 or from excessive head differentials in water table aquifers.
13
- 14 (7) Replacement Well - a well drilled to replace an existing well that has become
15 unusable, provided the new well meets the requirements set forth in these
16 regulations.
17
- 18 (8) Standby Well – a well that can be placed in operation to withdraw water but is
19 only used when water is temporarily unavailable from the primary source or
20 sources because of mechanical failure, maintenance, or power failure.
21
- 22 (9) Test Well – a well drilled to explore for groundwater for a water supply well.
23
- 24 (10) Underground Discharge Well – a well in which the top of the casing terminates at
25 a discharge head located below the frostline.
26

27 SS. Well Completion - term used collectively to refer to both the drilling and developing
28 phases of well construction. For the purpose of reporting requirements established in this
29 regulation, a distinction is made between completion of drilling and completion of well
30 development:
31

- 32 (1) Completion of drilling – the date that drilling is completed and the drill rig is no
33 longer required at the site.
34
- 35 (2) Completion of well development – the date that the well is fully functional and
36 ready to provide water for its designated beneficial use, including having met any
37 applicable water testing requirements.
38

39 Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.
40

41 Rule 2.2 Applicability.
42

- 43 A. Any person, or any company, corporation, or other business entity engaging in a
44 business or occupation that involves drilling of water wells or drilling boreholes
45 that may penetrate water bearing strata (including constructing water wells,
46 constructing geo-thermal systems, constructing environmental monitoring wells,

conducting geotechnical investigations, conducting seismic exploration, or similar activities) or installing pumps or other equipment in water wells must first obtain the appropriate license or license renewal required pursuant to this regulation. A license is not transferable or assignable, and MDEQ will maintain a current register of licensees. If the applicant is a company, corporation, or other business entity that is not an individual, the application shall include the name of the designated individual who will hold the license for the company. A company will be deemed to be licensed only if it has a designated principal or other key employee who is licensed. The application shall be accompanied by a notarized affidavit signed by the applicant certifying that the individual applicant or the company's designee has a minimum of three (3) years qualifying experience in the practice for which the license is being sought.

- B. Exemptions – For the purposes of these regulations, a person who owns or leases property in the state; or who otherwise owns a property interest allowing the drilling of a water well on, and the use of water under, property in the state may drill a water well on that property without having a Water Well Contractor's license provided:
- (1) The well will be used only to supply water for domestic use to a single family dwelling which is the owner's or lessee's permanent residence; and/or to water livestock on the owner's or lessee's farm and/or to supply water for irrigating crops on the owner's or lessee's farm (crop irrigation exemption in effect until July 1, 2011 in accordance with MS Code Annotated Section 51-5-1); and
 - (2) The owner or lessee complies with applicable well construction standards contained in this regulation and the applicable regulations promulgated by the Mississippi State Department of Health.
- C. Either a licensed water well contractor or an employee certified by the licensee in accordance with Rule 2.2.D. of this regulation must be on site and personally supervising operations during all critical stages of the drilling and completion of a potable water well including, but not limited to, collecting sand samples, logging the hole, setting the casing, grouting the well, setting the screen, placing the filter pack, developing and testing the well, and installing the pump.
- D. Licensed water well contractors who have the capability to conduct simultaneous operations on multiple construction sites within the state may certify the competency of employees who will be in responsible charge of all on-site operations in the absence of the licensee. Within sixty (60) days after the effective date of this regulation, the licensee shall furnish MDEQ a list of the designated employees and a written certification that the listed employees are competent to perform and supervise all critical stages of drilling and completion of potable water wells. The list shall be updated and recertified by the licensee annually and submitted to MDEQ with the annual request for license renewal.

1 E. Neither these regulations, nor any permit issued thereunder, creates or includes any
2 property right in favor of the permittee.
3

4 Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.
5

6 *Rule 2.3 Minimum Requirements For Licensing.* An applicant for a license, as defined in
7 this regulation, must submit a completed application on the form provided by MDEQ; and meet
8 or comply with the requirements set forth below:
9

10 A. Water Well Contractor (Unrestricted License)
11

- 12 (1) Be at least twenty-one (21) years of age; and
13
- 14 (2) Be of good moral character; and
15
- 16 (3) If not previously licensed by the state, or if seeking reinstatement of a
17 license, demonstrate, to the satisfaction of the Commission, a reasonable
18 knowledge of state water laws, regulations, water well and borehole
19 drilling practices, and pump and well equipment installation practices by
20 passing such examinations as may be prescribed by the Commission, or its
21 designee; and
22
- 23 (4) Provide proof that the applicant possesses, or has unrestricted access to,
24 the necessary tools and equipment to engage in all aspects of the business
25 of water well contracting;
26
- 27 (5) Provide evidence of at least three (3) years qualifying experience, i.e.
28 experience in on-site supervision and being in responsible charge of all
29 aspects of water well and borehole construction gained while working
30 under the personal supervision of a water well contractor holding an
31 unrestricted license, or its equivalent; and
32
- 33 (6) If not previously licensed by the state, provide notarized affidavits, as
34 required by statute, from three (3) licensed water well contractors
35 certifying that the applicant has the necessary qualifications and
36 experience to meet the state's licensing standards at the level for which he
37 is applying.
38

39 B. Specialty Driller or Pump Installer (Restricted License)
40

- 41 (1) Be at least twenty-one (21) years of age; and
42
- 43 (2) Be of good moral character; and
44
- 45 (3) Demonstrate, to the satisfaction of the Commission, a reasonable knowledge of
46 state water laws, regulations, and the specific practices for which the restricted

license is being sought by passing such examinations as may be prescribed by the Commission, or its designee;

- (4) Provide written certification that they will only engage in the limited practice for which they are seeking the restricted license, such as constructing irrigation wells in the Mississippi River Valley Alluvial Aquifer (MRVA), constructing domestic wells less than six (6) inches in diameter, drilling geotechnical boreholes, constructing environmental monitoring wells, constructing geo-thermal systems, or installing and servicing pumps and related well equipment;
- (5) Provide evidence of at least three (3) years of qualifying experience, i.e. experience gained while working under the direct supervision of a licensee engaged in the business or practice for which the license is being sought; and
- (6) If not previously licensed by the state, provide notarized affidavits, as required by statute, from three (3) licensed water well contractors certifying that the applicant has the necessary qualifications and experience to meet the state's licensing standards at the level for which he is applying.

Source: Miss. Code Ann. §§ 51-3-1, *et seq.*, 51-5-1, *et seq.*, 49-2-1, *et seq.* and 49-17-1, *et seq.*

Rule 2.4 Examination.

- A. A license applicant shall be required to take such examinations as may be prescribed by MDEQ. Examinations will normally be administered to test:
 - (1) general knowledge of groundwater resources and wells,
 - (2) specialized knowledge in equipment, techniques, and practices appropriate to the license being sought, and
 - (3) specific knowledge of state laws, regulations, and construction standards.
- Upon receipt of a completed application form and supporting documentation as set forth in Rule 2.3, MDEQ will contact the applicant to schedule the examinations. At that time, MDEQ will advise the applicant as to the types of examinations that will be administered, the general content of the examinations, and the availability of study materials.
- B. The examinations will be taken at a time and place designated by MDEQ.
- C. If the applicant fails to pass the examination(s), the examination(s) may be taken again upon written request, but not sooner than 30 days after the previous examination. If the applicant does not request re-examination within one (1) year, the application for license will be nullified and discarded.

- 1 D. MDEQ may waive a portion of the examination requirement for an applicant with a valid
2 license from another state having license requirements substantially the same as those
3 contained in this regulation. However, all applicants will be required to pass the
4 examination on state laws, regulations and construction standards.
5

6 Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq.; 49-2-1, et seq. and 49-17-1, et seq.
7

8 *Rule 2.5 Fees.*
9

- 10 A. License Fee – Upon passing the examination, the annual license fee of one hundred
11 dollars (\$100.00) must be paid before the license will be issued. The fee must be paid by
12 check, money order, or electronic payment directed to MDEQ. **Do not send cash.**
13
14 B. Renewal Fee - An annual renewal fee of one hundred dollars (\$100.00) must be paid to
15 MDEQ with the request for renewal of a license.
16
17 C. Late Fees – A late fee of ten dollars (\$10.00) per month, or any fraction thereof, will be
18 assessed for renewal or reinstatement requests received after the expiration date of the
19 last valid license.
20

21 Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq.; 49-2-1, et seq. and 49-17-1, et seq.
22

23 *Rule 2.6 License Renewal.*
24

- 25 A. All licenses expire on June 30 and must be renewed annually. The licensee shall submit
26 a completed renewal request form, provided by MDEQ, along with the appropriate fee to
27 MDEQ prior to June 30. Re-examination is not required for timely renewal of a license.
28
29 B. Receipt of the renewal form and fee by MDEQ prior to June 30 shall have the effect of
30 extending the old license until the new license and ID is issued, or until the applicant is
31 notified that the request for renewal has been denied. If the request for renewal is not
32 properly filed by June 30, the license will expire and the licensee shall cease all work for
33 which a valid license is required until such time as the license has been reinstated.
34
35 C. A licensee may request that an expired license be re-instated by submitting to MDEQ the
36 required renewal form and paying the appropriate fee plus accumulated late fees. Failure
37 to request re-instatement within one (1) year after the expiration date may be deemed a
38 forfeiture of the reinstatement option. Any request for reinstatement submitted thereafter
39 may require submittal of a new application and be subject to the examination
40 requirement.
41
42 D. Restricted licensees requesting renewal must submit a written certification that they will
43 continue to work only in accordance with the conditions of the restricted license.
44
45 E. A completed continuing education form, provided by MDEQ, shall be submitted with the
46 renewal form to MDEQ.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 2.7 Continuing Education.

A. All licensees are required to complete a minimum of four (4) hours of continuing education annually and submit proof as required by MDEQ. Every two (2) years, one (1) of the hours of continuing education must be on state rules and regulations as presented by MDEQ.

B. A licensee may be exempted from the continuing education requirements one of the following reasons:

(1) New licensees who have obtained their license less than one (1) year before the June 30th renewal deadline.

(2) Licensees who have experienced physical disability, serious illness, or other extenuating circumstances that prevent work for more than 180 days in a year. Supporting documentation must be furnished to MDEQ upon request.

(3) Licensees serving on temporary active duty in the armed forces of the United States for a period of time exceeding 180 days in a year. Supporting documentation must be furnished to MDEQ upon request.

C. Acceptable continuing education programs shall be designed to improve the license holder's professional skills and knowledge in the ground water industry. Course content shall be related to subjects such as well and pump standards, geologic characteristics of the state, state groundwater laws and related regulations, well construction and pump installation practices and techniques, drilling and job site safety, protection of public health related to drinking water, environmental protection, technological advances, and business management.

D. Continuing education hours may be earned as follows:

(1) Attending conferences or training hosted by regional or national associations of the ground water industry.

(2) Successful completion of correspondence, video, or electronic short courses/tutorials presented by approved education providers.

(3) Instruction of approved continuing education courses.

(4) Successful completion of courses, seminars, workshops, or lectures given by accredited educational institutions

E. Approval of Continuing Education Programs

- (1) Continuing education programs must be approved by MDEQ.
- (2) Applications to approve continuing education programs must contain the following minimum information:
 - (a) Description of course(s)
 - (b) Length of course(s) in actual training hours
 - (c) Name and qualifications of instructor(s)
- (3) Upon receiving approval of a continuing education course or program, the provider is entitled to state that the course has been approved by the Mississippi Department of Environmental Quality – Office of Land and Water Resources for continuing education credit under the Licensing of Water Well Contractors Title 11, Part 7, Chapter 2, Rule 2.1, et seq.; or, if the program is approved then the provider is entitled to state that they are an approved educational provider by the Mississippi Department of Environmental Quality – Office of Land and Water Resources for continuing education under the Licensing of Water Well Contractors Title 11, Part 7, Chapter 2, Rule 2.1, et seq.

F. Proof of Continuing Education

- (1) The license holder is responsible for the submission of proof of all approved training. Inability of the applicant to substantiate credit hours submitted is grounds for disallowance of the credits in question.
- (2) Proof of continuing education will consist of:
 - (a) Official transcripts from an accredited educational institution
 - (b) A certificate of completion signed by the instructor or approved educational provider, containing the license holder's name, date of training, name of course and number of hours of actual training

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 2.8 Equipment. All drilling rigs, water trucks, service vehicles and other vehicles used in the normal drilling, construction, completion, or reworking of wells and boreholes, and/or the installation of pumping equipment must have the name of the licensee (person, firm, or corporation), and the letters "MS Lic." with the appropriate license number prominently and legibly displayed on both sides of the vehicle. The letters and numerals shall be not less than two (2) inches in height and be placed on a background of contrasting color. Drill rigs shall be registered with MDEQ, for identification purpose only, by completing and submitting forms provided by MDEQ for that purpose.

1 Source: Miss. Code Ann. §§ 51-3-1, et seq.; 51-5-1, et seq.; 49-2-1, et seq. and 49-17-1, et seq.

2
3 *Rule 2.9 State Well Reports.* The State Well Report will include sections for a driller's log,
4 a well completion report, and a well modification report. The driller's log portion of the report
5 shall be completed by the licensed contractor and submitted to MDEQ for all drilled wells and
6 boreholes that penetrate water bearing strata. Water well contractors drilling irrigation wells into
7 the Mississippi River Valley Alluvial Aquifer (MRVA) shall furnish a copy of the driller's log to
8 the YMD Joint Water Management District (YMD) at the same time the original report is
9 submitted to MDEQ. Driller's logs will not be required for geotechnical boreholes less than
10 twenty-five (25) feet in depth that do not encounter water bearing strata; environmental
11 monitoring wells less than twenty-five (25) in depth that are regulated under other state and
12 federal environmental programs; or small diameter wells or sampling holes less than fifty (50)
13 feet in depth that are established with direct push (geo-probe) equipment. If a water well is
14 developed and completed by a water well contractor immediately upon completion of drilling,
15 both sections of the form shall be completed by the contractor and the report submitted to MDEQ
16 within thirty (30) days after completion of the well. If for any reason a well is not developed and
17 completed immediately upon completion of drilling, the following procedure shall be followed:

- 18
19 A. The driller's log section of the well report form provided by MDEQ shall be completed
20 by the water well contractor who constructed the well or borehole and submitted to
21 MDEQ within thirty (30) days after completion of drilling. For all water wells and
22 boreholes, the driller's log section of the report must be signed by an appropriately
23 licensed water well contractor. The driller's log entries on the report form shall be
24 true, accurate, and complete. Portions of the form that may not be applicable shall
25 contain an entry to that effect. Incomplete or inaccurate submittals will be returned to
26 the licensee for completion or correction, but the 30-day filing period will not be
27 extended. If the properly-executed form is not on file with MDEQ by the end of the 30-
28 day period, the licensee will be deemed to be in non-compliance and may be subject to
29 penalties as prescribed by statute and this regulation. The water well contractor filing the
30 report shall keep a copy of the submittal and provide a copy to the owner of the well or
31 borehole. For geotechnical investigations, the licensee may submit boring logs generated
32 for a site report in lieu of the MDEQ form, provided the logs include all required
33 information.
34
35 B. If a water well is completed by someone other than the water well contractor who
36 constructed the well, the owner of the well shall be responsible for providing a copy of
37 the state well report form containing the previously completed driller's log to the licensee
38 responsible for completion of the well.
39
40 C. The licensee who develops and completes the well shall fill out the well completion
41 section of the well report on the copy of the form containing the previously submitted
42 driller's log and submit the completed report to MDEQ within thirty (30) days after
43 completion of the well. For all water wells, the well completion section of the report
44 must be signed by an appropriately licensed water well contractor. The entries on the
45 report form relating to well completion shall be true, accurate, and complete. Portions of
46 the form that may not be applicable shall contain an entry to that effect. Incomplete or

1 inaccurate submittals will be returned to the responsible licensee for completion or
2 correction, but the 30-day filing period will not be extended. If the properly-executed
3 form is not on file with MDEQ by the end of the 30-day period, the licensee will be
4 deemed to be in non-compliance and may be subject to penalties as prescribed by statute
5 and this regulation. The water well contractor filing the report shall keep a copy of the
6 submittal and provide a copy to the owner of the well.

- 7
- 8 D. The well modification report shall be filed with MDEQ by the licensed water well
9 contractor within thirty (30) days after any major modification to, or rehabilitation of, an
10 existing well six (6) inches or greater in diameter. The report shall include the water use
11 permit number associated with the well and a detailed description of the work performed.
12 When a well that does not comply with current construction standards requires major
13 modifications or rehabilitation, the work shall include items necessary to bring the well
14 up to current minimum standards set forth in Rule 2.12.A.1.b., c. and d.

15

16 Source: Miss. Code Ann. §§ 51-3-1, *et seq.*, 51-5-1, *et seq.*, 49-2-1, *et seq.* and 49-17-1, *et seq.*

17

18 *Rule 2.10 Suspension/Revocation of License.* Grounds for the suspension or revocation of a
19 license are as follows:

- 20
- 21 A. Providing false information in an application for a license or any affidavit
22 required in the licensing process;
- 23
- 24 B. Violating any provision of Miss. Code Ann. Sections 51-5-1, *et seq.*, or this regulation;
- 25
- 26 C. Attempting to obtain a license by fraud or misrepresentation;
- 27
- 28 D. Participating in fraudulent, deceptive, or dishonest business practices;
- 29
- 30 E. Demonstrated incompetency as a driller and/or pump installer;
- 31
- 32 F. Failure or refusal to file accurate and timely reports as required by this regulation; or
- 33
- 34 G. Failure to obey Orders, Rules and Regulations of the Commission, including refusal to
35 accept or receive official correspondence from the Commission or its designee.

36

37 Source: Miss. Code Ann. §§ 51-3-1, *et seq.*, 51-5-1, *et seq.*, 49-2-1, *et seq.* and 49-17-1, *et seq.*

38

39 *Rule 2.11 Hearings and Appeals.* Procedures for hearings and appeals of Commission
40 decisions are set forth in Miss. Code Annotated, Sections 51-5-7 and 51-5-9.

41

42 Source: Miss. Code Ann. §§ 51-3-1, *et seq.*, 51-5-1, *et seq.*, 49-2-1, *et seq.* and 49-17-1, *et seq.*

43

44 *Rule 2.12 Design Criteria And Construction Standards.* The Licensee shall be responsible
45 for compliance with all applicable state and federal statutes and regulations.

1 A. Water Wells and Boreholes Penetrating Aquifers In General Use For Domestic and
2 Public Water Supply – The standards contained herein are the minimum construction
3 standards considered necessary for the protection of the state’s high-quality groundwater
4 resources. Other regulatory programs may be applicable and additional standards may be
5 required for certain types of facilities, such as Mississippi State Department of Health
6 regulations governing public supply wells. If a water well contractor encounters
7 geologic formations or unusual circumstances that appear to dictate a deviation from the
8 standards, the contractor shall consult with MDEQ staff regarding proposed construction
9 procedures for the water well or borehole in question.

10
11 (1) Construction Standards – The following construction standards apply to wells and
12 boreholes penetrating water bearing strata including but not limited to, potable
13 water wells, irrigation wells, monitoring wells, observation wells, underground
14 discharge wells, dewatering wells, saline or brackish water withdrawal wells,
15 contaminant recovery wells, heat pump water supply holes and vertical closed-
16 loop system holes, industrial supply wells, cathodic protection wells, rig supply
17 wells and geotechnical boreholes:

- 18
19 (a) All water wells and boreholes covered under this section shall be
20 constructed by a licensed water well contractor unless specifically
21 exempted by statute.
22
23 (b) Well casing shall terminate not less than twelve (12) inches above
24 natural ground elevation or, where practicable, above the 100-year
25 flood elevation. However, if flood levels around the well routinely
26 exceed a reasonable height for an extended casing above the twelve
27 (12) inch minimum, then the well shall be fully sealed with a Braden
28 Casing Head, or approved equivalent, to prevent the flow of flood waters
29 into the casing. The casing head shall contain a screw-in plug with a
30 minimum diameter of one-half (1/2) inch to provide access for water level
31 measurements. If the casing is not covered with a recorder box or pump
32 housing, then it must have a locked, overlapping cover or other suitable
33 cover capable of preventing unauthorized access to the casing head and
34 access plug.
35
36 (c) Public water supply wells shall have the top of the well casing set at least
37 one (1) foot above the 100-year flood level.
38
39 (d) All wells shall have a check valve installed in the discharge line to
40 prevent the intentional or accidental introduction of contaminants
41 into the well. All new unmetered wells larger than six (6) inches in
42 diameter shall have a minimum of four (4) feet of straight pipe
43 installed between the casing head and the check valve, and all other
44 equipment, valves, pressure relief valves, vacuum breakers, and
45 distribution systems shall be connected on the discharge side of the check
46 valve.

- 1
- 2 (e) All wells, except approved underground discharge wells as specified in
- 3 paragraph o. below, shall be constructed in such a manner that the finished
- 4 ground elevations around the casing are sloped to drain away from the
- 5 casing. Equipment such as engines, pressure tanks, or fuel tanks to be
- 6 installed shall be placed on pre-cast concrete blocks or pads to prevent
- 7 differential settlement that could result in damage to the pump and the
- 8 well.
- 9
- 10 (f) The annular space on all wells covered by this section of the regulation
- 11 shall be grouted from a depth of at least ten (10) feet below the surface to
- 12 the surface, except as specified in paragraphs g, i, j, k, l, m, o, and p
- 13 below.
- 14
- 15 (g) Wells located within one hundred (100) feet of a potential source
- 16 of pollution such as sewers, septic tanks, landfills, and waste and
- 17 raw material piles shall be grouted from a depth of at least fifty
- 18 (50) feet below the land surface to the surface, except as specified
- 19 in paragraphs h, i, j, k, l, n, and o below.
- 20
- 21 (h) Potable water wells shall not be constructed within 100 feet of any
- 22 potential source of pollution.
- 23
- 24 (i) Wells located within one-quarter mile of a known existing area of
- 25 contaminated aquifer shall be grouted from the top of the water
- 26 bearing stratum to the ground surface, or the top of the casing for
- 27 underground discharge wells.
- 28
- 29 (j) Outer casing for wells serving public water supply systems shall be
- 30 grouted from the top of the target water bearing stratum to the
- 31 ground surface.
- 32
- 33 (k) monitoring wells shall be grouted from the top of the seal or filter pack to
- 34 the ground surface, unless a more stringent requirement is mandated by
- 35 other applicable regulatory programs. Specifics of monitoring well
- 36 construction shall follow the most stringent requirements of the
- 37 applicable regulatory programs.
- 38
- 39 (l) Cathodic protection wells shall be grouted from a depth of fifty
- 40 (50) feet below ground surface to the ground surface. Wells
- 41 constructed with granular material such as gravel from the top of
- 42 the anodes to near the surface are prohibited. If wells are no longer
- 43 used, the vent pipe, casing or other non-grouted openings shall be
- 44 grouted from a depth of at least ten (10) feet below the ground
- 45 surface to the ground surface.
- 46

- 1 (m) For continuous lengths of grout not separated by multiple screens,
2 grout shall be introduced in one continuous operation from the top of the
3 water bearing stratum to the ground surface.
4
- 5 (n) Grout for all holes covered under this section shall consist of either
6 neat cement, cement grout, cement-bentonite mixture (5-8%
7 bentonite), or bentonite. Bentonite pellets or bentonite chips may
8 be added under free-fall conditions for depths not exceeding
9 twenty-five (25) feet. Free-fall addition of any other type grout
10 from the surface is prohibited. Granulated or pelletized bentonite
11 may be placed to greater depths only if introduced through a tremie
12 pipe.
13
- 14 (o) All wells, regardless of size, which are drilled through or into
15 aquifers containing chloride concentrations in excess of 250
16 milligrams per liter (mg/l) and/or total dissolved solids (TDS)
17 concentrations in excess of 1000 milligrams per liter (mg/l), must
18 be completed using metal casing. Furthermore, all such wells shall
19 be completed using only the casing method of grouting
20 (Halliburton method) to grout thoroughly the annular space from
21 the bottom of the casing to ground surface or to the top of the
22 casing for underground discharge wells.
23
- 24 (p) Outer casing for underground discharge domestic wells shall be
25 grouted from a depth of at least ten (10) feet below the top of the
26 casing at the underground discharge head, or pitless adapter, to the
27 top of the casing.
28
- 29 (q) Public water supply wells shall be constructed in such a manner that any
30 column/casing vents and blowoff valves are properly screened.
31
- 32 (2) Disinfection
33
- 34 (a) All water used in the drilling or construction process and in well
35 development shall be clean and free of impurities that could
36 contaminate water bearing sands penetrated by the well or
37 borehole. For construction and development of a potable water
38 well, water shall be obtained from a groundwater source of proven
39 quality such as a domestic well or a public water supply system. If
40 the water is obtained from a local public water supply distribution
41 system, it need not have additional chlorine added during the
42 drilling and/or construction process; otherwise, the water shall be
43 chlorinated. A residual of free chlorine of not less than 5 parts per
44 million (ppm) shall be maintained in any water used for well
45 development.
46

- 1 (b) Gravel to be placed in potable water wells shall be disinfected with
2 a solution of at least 50 mg/l free chlorine. (Clean pre-packaged
3 gravel is exempt from this requirement.)
4
- 5 (c) Upon completion of drilling potable water wells, the well and
6 adjacent aquifer shall be disinfected using a solution of at least 50
7 mg/l free chlorine applied for at least 24 hours. The procedure
8 shall meet or exceed the American Water Works Association
9 (AWWA) Standard current at the time of the activity.
10
- 11 (d) After disinfection, the potable water well shall be pumped until a
12 chlorine free sample is collected from the well. The sample also
13 must be free of coliform bacteria. Samples shall be collected,
14 submitted, and analyzed in accordance with applicable Mississippi
15 State Department of Health requirements.
16

17 B. Water Wells and Boreholes Constructed in the Mississippi River Valley Alluvial
18 Aquifer (MRVA) – The MRVA is a uniquely situated shallow aquifer used almost
19 exclusively for agricultural irrigation with very little potential of increased demand for
20 domestic or public water supply. Because of the unconsolidated nature of the material
21 and the predominant agricultural water use, the drilling technique in general use for large
22 diameter irrigation wells in the MRVA is reverse circulation rotary drilling.
23 Consequently the standards for construction and disinfection have been modified slightly
24 to reflect the water usage and drilling practices in the MRVA. If a water well contractor
25 encounters geologic formations or unusual circumstances that appear to dictate a
26 deviation from the standards, the contractor shall consult with MDEQ staff regarding
27 proposed construction procedures for the water well or borehole in question.
28

- 29 (1) Construction Standards – The following construction standards apply to
30 irrigation wells screened and completed in the MRVA and to boreholes
31 that do not penetrate the base of the MRVA, including but not limited to,
32 irrigation wells, monitoring wells, observation wells, and geotechnical
33 boreholes:
34

- 35 (a) All water wells and boreholes covered under this section shall be
36 constructed by a licensed water well contractor unless specifically
37 exempted by statute.
38
- 39 (b) Well casing shall terminate not less than twelve (12) inches above
40 natural ground elevation or, where practicable, above the 100-year
41 flood elevation. However, if flood levels around the well
42 routinely exceed a reasonable height for an extended casing above
43 the twelve (12) inch minimum, then the well shall be fully sealed
44 with a Braden Casing Head, or approved equivalent, to prevent the
45 flow of flood waters into the casing. The casing head shall contain
46 a screw-in plug with a minimum diameter of one-half (1/2) inch to

1 provide access for water level measurements. If the casing is not
2 covered with a recorder box or pump housing, then it must have a
3 locked, overlapping cover or other suitable cover capable of
4 preventing unauthorized access to the casing head and access plug.
5

6 (c) All wells shall have a check valve installed in the discharge line to
7 prevent the intentional or accidental introduction of contaminants into
8 the well. All new unmetered wells larger than six (6) inches in
9 diameter shall have a minimum of four (4) feet of straight pipe
10 installed between the casing head and the check valve, and all other
11 equipment, valves, pressure relief valves, vacuum breakers, and
12 distribution systems shall be connected on the discharge side of the check
13 valve.
14

15 (d) All wells, except approved underground discharge wells, shall be
16 constructed in such a manner that the finished ground elevations
17 around the casing are sloped to drain away from the casing.
18 Equipment such as engines, pressure tanks, or fuel tanks to be
19 installed shall be placed on pre-cast concrete blocks or pads to
20 prevent differential settlement that could result in damage to the
21 pump and the well.
22

23 (e) The annular space on all wells covered by this section of the
24 regulation shall be grouted or sealed with bentonite from the
25 lowest level of disturbed earth immediately adjacent to the casing
26 down to a depth of at least ten (10) feet below that level, except as
27 specified in paragraphs of. and g. below.
28

29 (f) Wells located within one hundred (100) feet of a potential source of
30 pollution such as sewers, septic tanks, landfills, and waste and raw
31 material piles shall be grouted from the lowest level of disturbed earth
32 immediately adjacent to the casing down to a depth of at least fifty (50)
33 feet below that level, except as specified in paragraph g. below.
34

35 (g) Wells located within one-quarter mile of a known existing area of
36 contaminated aquifer shall be grouted from the lowest level of
37 disturbed earth immediately adjacent to the casing to the top of the
38 water bearing stratum.
39

40 (h) Grout for all holes covered under this section shall consist of either
41 neat cement, cement grout, cement-bentonite mixture (5-8%
42 bentonite), or bentonite. Bentonite pellets or bentonite chips may
43 be added under free-fall conditions for depths not exceeding
44 twenty-five (25) feet. Freefall addition of any other type grout
45 from the surface is prohibited. Granulated or pelletized bentonite

may be placed to greater depths only if introduced through a tremie pipe.

(2) Drilling Fluids and Disinfection

- (a) All water used in the drilling or construction process and in well development for non-potable water wells in the MRVA shall be dosed to a minimum concentration of fifty parts per million (50 ppm) of chlorine, i.e., two (2) gallons of sodium hypochlorite (laundry bleach, approximately five percent (5%) available chlorine) per one thousand (1000) gallons of drilling water.
- (b) The licensee shall denote on the driller's log portion of the State Well Report the location of the source of any surface water used as well as the method of dosing and the volume of chlorine used in the drilling and development of a non-potable water well in the MRVA.
- (c) Equipment used in the transport, storage, or circulation of surface water during the drilling and development of a non-potable water well in the MRVA shall not be used thereafter in the drilling and development of a potable water well without having first been disinfected with a solution of at least fifty parts per million (50 ppm) free chlorine for a minimum contact time of twenty-four (24) hours.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 2.13 Maintenance and Service Criteria for Public Water Wells.

- A. General – Installation of pumps and well equipment shall be in accordance with the manufacturer's recommendation and this regulation. All pumps and well equipment shall be designed and installed so as to prevent contamination of the well.
 - (1) Licensing – Pump installation shall be performed either by a Water Well Contractor holding an unrestricted license or by a restricted licensee who specializes in pump installation and well service.
 - (2) Location of pressure tanks and switches – Pressure tanks and switches located above ground shall be on a concrete slab or preformed pad or blocks. Tanks and switches installed below grade shall be in a concrete pit or basement designed to be adequately drained, unless approved for direct burial. A pressure tank may be buried provided the tank is designed for that type installation. Tanks to be installed inside the bore of a water well must be designed for that purpose and approved by the Commission.

- 1 (3) Temporary seal – If the pump and well equipment are not installed immediately
2 upon completion of drilling, all openings to the well must be closed to prevent
3 pollution or vandalism. After pump installation, all open spaces must be sealed
4 off to prevent contamination of the ground water.
5
- 6 (4) Drop pipe, wire, etc. – All drop pipe, wire, pumps, and other pumping equipment
7 to be installed in the well shall either be new or be disinfected with a solution of
8 at least 50 mg/l free chlorine; and it shall be installed in such a manner as to
9 permit removal and repair of all equipment. If equipment or tools are lost in the
10 well and not recovered, a statement describing the item or items lost shall be
11 attached to the well completion report submitted to MDEQ.
12
- 13 (5) Prevention of contamination – Pumping equipment shall be installed in
14 such a manner as to prevent the entrance of contamination into the ground
15 water. Discharge pipes shall be fitted with devices which will prevent the
16 entrance of small animals.
17
- 18 (6) Check valves – Pumping equipment installed and used in conjunction with
19 Chemigation, which is the practice of injecting agricultural chemicals into
20 irrigation lines in order to mix and distribute the chemicals with the water flowing
21 through the irrigation system, shall have either two check valves, or other means
22 of backflow prevention as may be approved by MDEQ, installed between the well
23 head and the point of introduction of any chemicals.
24

25 B. Submersible pump installation
26

- 27 (1) Check valves – Submersible Pumps shall have no less than 2 check valves
28 installed. One check valve must be installed above ground.
29
- 30 (2) Wire -- Wire shall be secured to the drop pipe in a manner which will
31 support the weight of the wire and keep the wire close to the pipe.
32
- 33 (3) Clamps -- All clamps used shall be all stainless steel.
34

35 C. Jet pump installation
36

- 37 (1) Check valves -- Jet Pumps shall have a check valve installed on the discharge
38 side of the pressure tank.
39
- 40 (2) Clamps - All clamps used shall be all stainless steel.
41

42 D. Turbine pump installation
43

- 44 (1) Steel column pipe for line shaft turbine pumps – Steel column pipe for
45 turbine pump irrigation wells shall be standard weight flanged or threaded
46 steel pipe.

(2) Plastic column pipe may be used for turbine pump installation provided the pipe is designed and manufactured for that purpose.

E. Pressure systems – All pressure systems will have a pressure relief valve installed between the well seal and pressure switch.

F. Power and control wiring - Licensees may run power and control wiring from a disconnect box to water well equipment. A license issued pursuant to this regulation does not authorize the licensee to alter the existing electrical service to any building or structure or perform any other electrical work covered by the National Electric Code (NEC) or local building codes.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 2.14 Decommissioning of Abandoned or Unused Water Wells and Boreholes.

A. Applicability

(1) Except as stated in paragraph B. below, the standards for decommissioning abandoned or unused water wells and boreholes apply to all abandoned water wells and to all boreholes that penetrate water bearing strata or are greater than twenty-five (25) feet in depth including potable water wells, agricultural wells, monitoring wells, observation wells, dewatering wells, relief wells, saline or brackish water withdrawal wells, contaminant recovery wells, heat pump water supply wells and closed loop system holes, industrial supply wells, rig supply wells, geotechnical boreholes, cathodic protection wells and pilot boreholes.

(2) All wells and boreholes that penetrate water bearing stratum with a depth of 25 feet, or greater, below land surface must properly be decommissioned by a water well contractor licensed by MDEQ. Water wells less than 25 feet in depth below land surface may be plugged by someone other than a licensed water well contractor. However, the same procedures and reporting requirements apply regardless of who plugs the well.

(3) If approved and accepted in writing by MDEQ, properly cased and sealed wells may be provided with a locking cover capable of preventing the entrance of contaminants and used as monitoring wells or observation wells in lieu of abandonment. If the use of an observation or monitoring well is later discontinued by MDEQ, the landowner/permittee shall be responsible for having the well properly decommissioned by a licensed water well contractor.

B. Exemptions - Exemption from this regulation does not relieve the owner of the responsibility for identifying and complying with other applicable local, state, and federal

1 regulations. The following types of wells and boreholes are exempt from
2 decommissioning requirements set forth in this regulation:

- 3
- 4 (1) Saline water wells associated with enhanced oil and gas recovery
5 operation, brine withdrawal wells, and other types of on-site oil
6 and gas well holes, including Class II wells regulated under the
7 Resource Conservation and Recovery Act (RCRA), 42 U.S.C.
8 Sections 6901, et seq.;
- 9
- 10 (2) Class I, III, IV and V injection wells regulated under the Resource Conservation
11 and Recovery Act (RCRA), 42 U.S.C. Sections 6901, et seq.; and
- 12
- 13 (3) Geotechnical boreholes less than twenty-five (25) feet in depth that
14 do not penetrate water bearing strata and boreholes drilled in
15 planned roadbed construction areas where the natural overburden
16 will be removed to within twenty-five (25) feet of the bottom of
17 the hole.

18

19 C. Types of Abandoned or Unused Wells – A water well may be considered by
20 MDEQ to have been abandoned if its use has been permanently discontinued; if
21 the well has not been used in the preceding 12 months (except for established
22 rotations of pumping equipment between wells related to crop irrigation and
23 instances where the owner has notified MDEQ of an anticipated longer period of
24 nonuse after which the well will be placed back in service.); if the pumping
25 equipment has been removed (except for established rotations of pumping
26 equipment between wells related to crop irrigation); or if the well cannot be
27 repaired. Rig supply holes, geotechnical boreholes, pilot holes, and dewatering
28 holes are considered abandoned immediately upon completion of the project phase
29 for which they are drilled, unless the well is an integral part of the continued
30 operation of the project, such as a pressure relief well or a permanently used
31 dewatering well.

32

33 D. Time allowed for plugging - Rig supply wells, pilot holes, and geotechnical
34 boreholes shall be plugged within 30 days after abandonment or cessation of use.
35 All other holes shall be plugged within 180 days after abandonment or cessation
36 of use.

37

38 E. Decommissioning Forms -- Abandonment and plugging of water wells and
39 boreholes shall be reported on a decommissioning form approved by and made
40 available from MDEQ. The person or contractor who plugs an abandoned water
41 well or borehole shall submit the decommissioning form to MDEQ within 30 days
42 after completion of the plugging. For irrigation wells located in the MRVA, a
43 copy of the form shall be submitted to YMD at the same time the original is
44 submitted to MDEQ. Reporting the abandonment and plugging of multiple water
45 wells and/or boreholes on one form may be permissible, with prior approval from

1 MDEQ, provided the same decommissioning procedure was used and the location
2 of each water well and/or borehole is clearly identified.

3
4 F. Decommissioning Procedures – The following procedures shall be followed in the
5 decommissioning of any water well or borehole for which decommissioning is
6 required under this regulation:
7

- 8 (1) Grout for all holes shall consist of neat cement, cement grout, cement bentonite
9 mixture (5-8% bentonite), or bentonite. Bentonite pellets may be added under
10 free-fall conditions for depths not exceeding twenty-five (25) feet, providing
11 pellets are placed in layers not more than five (5) feet deep and tamped into place
12 after addition of each layer. Granulated or palletized bentonite may be placed to
13 greater depths if introduced through a tremie pipe. Free-fall addition of other
14 types of grout from the surface is prohibited;
15
- 16 (2) Obstructions shall be removed from the well casing;
17
- 18 (3) If there is reason to question the physical integrity of the well casing
19 because of the age of the well or the material used for the casing, or there
20 are no records to indicate that the annular space was grouted properly
21 during construction of the well, the driller shall consult with MDEQ
22 before plugging the well. In such instances, MDEQ may require that the
23 casing be perforated to allow the introduction of grout into cavities or
24 voids that may have formed outside the casing; or may require that the
25 casing be removed from the hole prior to grouting;
26
- 27 (4) For abandoned water wells in agricultural fields, the casing shall be cut off
28 and removed down to a minimum depth of three feet below land surface.
29 After grouting, the excavation shall be filled with compacted soil. In other
30 areas, the casing shall be cut off and removed at least down to the ground
31 surface elevation. MDEQ may authorize alternate methods of
32 abandonment and/or abandonment by other than a licensed water well
33 contractor, provided the results will meet the intent of the regulations.
34 Only detailed written requests to utilize an alternate method of
35 abandonment or to abandon a well without utilizing a licensed water well
36 contractor shall be considered for approval. If approved, MDEQ will
37 provide written authorization to the requestor.
38
- 39 (5) Abandoned water wells or boreholes shall be sealed from the bottom of
40 the hole to ground surface using a grout as described in paragraph 1 above.
41
- 42 (6) MDEQ may authorize alternate methods of abandonment and/or
43 abandonment by other than a licensed water well contractor, provided the
44 results will meet the intent of the regulations. Only detailed written
45 requests to utilize an alternate method of abandonment or to abandon a
46 well without utilizing a licensed water well contractor shall be considered

for approval. If approved, MDEQ will provide written authorization to the requestor.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 2.15 *Enforcement.* Enforcement of these regulations shall be governed by Miss. Code Ann. Sections 51-5-7 and 51-5-17, and Sections 49-17-31 through 49-17-43.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 2.16 *Correspondence and Adequacy of Notice.*

- A. General – All permittees and licensees shall inform MDEQ of any address changes within fifteen (15) days of any change of address, and must readily accept all mail sent to them from the Commission, MDEQ, or the Permit Board.
- B. Registered or certified mail – Registered or Certified Mail sent with proper postage and to the last address provided to MDEQ by the permittee or licensee shall be considered adequate notification of notice served if MDEQ is notified that the mail was delivered and accepted or if the mail is returned as rejected or unclaimed by the addressee.
- C. Refusal to accept mail – Refusal to accept mail from the Commission, the Permit Board, the Department, or its designee, shall be considered a violation of this regulation.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 2.17 *Confidential Information.* Procedures for declaring submitted information confidential and for agency handling of such information are found in Miss. Code Ann. Section 49-17-39, Section 51-3-44, and the Commission’s Regulations Regarding the Review and Reproduction of Public Records (Chapter 11, Part 1, Chapter 2).

Source: Miss. Code Ann. §§ 51-3-1, et seq., 51-5-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Part 7, Chapter 3: Mississippi Commission on Environmental Quality Dam Safety Regulations

TABLE OF CONTENTS

Rule 3.1 Definitions
Rule 3.2. Authorization
Rule 3.3 Application Content and Procedure
Rule 3.4. Design and Safety Requirements

1
2 Rule 3.5. General Conditions of Authorization

3
4 Rule 3.6. Inspection and Reporting

5
6 Rule 3.7 Confidential Information

7
8 Rule 3.8. Enforcement

9
10 Rule 3.9. Correspondence and Adequacy of Notice

11
12 Rule 3.10. Hearings and Appeals

13
14 Appendix A Hydrologic Design Criteria

15
16
17 *Rule 3.1 Definitions.* The words and phrases used in this regulation shall have the
18 meanings set forth in this section:

- 19
20 A. Adverse Effects -Negative impacts that may occur at the site of the dam, upstream,
21 downstream, or at locations remote from the site of the dam. The primary concerns are
22 loss of human life, economic loss (including property damage), lifeline disruptions (such
23 as damage to roads, bridges, or utilities), and adverse environmental impact.
24
25 B. Abutment - That part of the undisturbed valley side or a constructed concrete wall against
26 which the dam is constructed. Right and left abutments are identified from the
27 perspective of an observer standing on the dam looking downstream.
28
29 C. Alter or Repair - Any change in the surface or cross-section of existing dams and/or
30 appurtenant works or any modification to appurtenant structures, other than minor
31 grading and fill associated with routine slope and turf maintenance activities. Examples
32 of alterations or repairs include such work as adding significant amounts of material to,
33 or removing material from, the cross-section of a dam; changing the dimensions or
34 elevations of an emergency or overflow spillway; replacing pipe or in any other way
35 altering a principal spillway; making any repairs of erosion or undermining associated
36 with seepage through the dam; building a roadway on or across any part of a dam;
37 burying pipelines; or in any way altering the approved operational features of a dam.
38
39 D. Appurtenant Works - This term includes, but is not limited to; spillways, either in the
40 dam or separate there from; the reservoir and its rim or shoreline; low level outlet works;
41 and water conduits such as tunnels, pipelines, or penstocks, either through the dam or its
42 abutments.
43
44 E. Breach - Partial removal of a dam by creating a channel through the dam to the original
45 stream bed elevation, so that no water is impounded by the breached structure.
46

- 1 F. Commission - The Mississippi Commission on Environmental Quality, or its designee.
- 2
- 3 G. Dam - Any artificial barrier, including appurtenant works, constructed to impound or
- 4 divert water, waste water, liquid borne materials, or solids that may flow if saturated. All
- 5 structures necessary to maintain the water level in an impoundment or to divert a stream
- 6 from its course will be considered one dam.
- 7
- 8 H. Days - Calendar days including Saturdays, Sundays, and Holidays; unless specifically
- 9 indicated otherwise in the body of this regulation.
- 10
- 11 I. Department or MDEQ - The Mississippi Department of Environmental Quality.
- 12
- 13 J. Emergency Action Plan - A formal written document identifying the area that would be
- 14 inundated in the event of a dam failure and setting forth the plans and procedures for
- 15 notifying the individuals, agencies, and public officials that would mobilize resources to
- 16 respond to the emergency.
- 17
- 18 K. Emergency -This term includes, but is not limited to, uncontrolled breach of a dam; or
- 19 any conditions leading to, or causing, a breach, overtopping, or any other condition in the
- 20 dam and/or its appurtenant works that may lead to failure of the dam or otherwise pose a
- 21 threat to life or property.
- 22
- 23 L. Enlarge -Any change in, or addition to, an existing dam or reservoir, which raises, or may
- 24 raise the water storage elevation or storage volume of the water, waste-water, or liquid-
- 25 borne material impounded by the dam.
- 26
- 27 M. High Hazard-A class of dam in which failure may cause loss of life, serious damage to
- 28 residential, industrial, or commercial buildings; or damage to, or disruption of, important
- 29 public utilities or transportation facilities such as major highways or railroads. Dams
- 30 which meet the statutory thresholds for regulation that are proposed for construction in
- 31 established or proposed residential, commercial, or industrial areas will be assigned this
- 32 classification, unless the applicant provides convincing evidence to the contrary.
- 33
- 34 N. Impoundment or Reservoir - A man-made dammed, leveed, or diked area or basin
- 35 designed to store water or other liquids above surface levels that would occur under
- 36 natural conditions.
- 37
- 38 O. Low Hazard - A class of dam in which failure would at the most result in damage to
- 39 agricultural land, farm buildings (excluding residences), or minor roads.
- 40
- 41 P. Permit Board or Board - The Mississippi Environmental Quality Permit Board.
- 42
- 43 Q. Person - The state or other agency or institution thereof, any municipality, political
- 44 subdivision, public or private corporation, individual, partnership, association or other
- 45 entity, and including any officer or governing or managing body of any municipality,

political subdivision, or public or private corporation, or the United States or any officer or employee thereof.

- R. Probable Maximum Precipitation (PMP) - The rainfall event used for hydraulic design of dams and appurtenant spillways in Mississippi. The Probable Maximum Precipitation (PMP) varies by location within the state and the event used in design shall be as defined for the proposed construction location by Hydrometeorological Reports published by the Office of Hydrology, National Weather Service S. Professional Engineer—An engineer with experience in the design of dams who is registered with the State of Mississippi Board of Registration for Professional Engineers and Land Surveyors.
- S. Professional Engineer—An engineer with experience in the design of dams who is registered with the State of Mississippi Board of Registration for Professional Engineers and Land Surveyors.
- T. Professional Geologist - A geologist with experience in determining and analyzing geologic conditions affecting the siting of dams who is registered with the Mississippi State Board of Registered Professional Geologists.
- U. Removal - Complete elimination of the dam embankment or structure to restore the approximate original topographic contours of the area.
- V. Significant Hazard - A class of dam in which failure poses no threat to life, but may cause significant damage to main roads, minor railroads, or cause interruption of use or service of public utilities.
- W. Water Storage Elevation - The maximum surface elevation of water that can be maintained by a dam or reservoir.
- X. Written Authorization - Official written correspondence or permit document from the Board, or its designee, authorizing construction, enlargement, repair, or alteration of a dam; including any specified conditions or limitations under which the work is to be performed by the person to whom the approval is granted.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 3.2 Authorization.

A. Applicability

- (1) Except as otherwise provided in this section, any person or entity proposing to construct, enlarge, repair, or alter a dam or reservoir in the state of Mississippi must obtain written authorization from the Permit Board, or its designee, prior to commencement of any site work related to the project. For high hazard and significant hazard dams, the written authorization will be in the form of a permit document. Application for such permits shall be made on a form prescribed by the

Board and will be processed by the Board in accordance with Mississippi Code Annotated, Section 49-17-29.

- (2) The Board may require submittal of any information deemed necessary to evaluate a proposal to construct, enlarge, repair, or alter a dam or reservoir. Once the Board has authorized the project, the applicant shall not modify the approved design, plans, specifications, or construction methods, or act according to such modified documents, without the prior written authorization of the Permit Board.
- (3) Any person intending to acquire the right to store or use water from a reservoir formed by a dam, regardless of whether or not written construction authorization is required under this regulation, shall submit an application for a surface water use permit to MDEQ in accordance with Mississippi Code Annotated, Sections 51-3-5 and 51-3-7, and the regulations of the Commission promulgated thereunder.

B. Exceptions

- (1) Prior written authorization is not required for emergency repairs to a dam which is in imminent danger of failing. However, the dam owner shall report such emergency repairs to MDEQ by close of business on the next business day following the incident and file a written report with MDEQ within five (5) days of the incident.
- (2) Written construction authorization shall not be required for:
 - (a) a peripheral dam or levee eight (8) feet or less in height, measured from the point of lowest elevation of its toe, regardless of the impounded storage volume; or
 - (b) a dam that impounds twenty-five (25) acre-feet or less at maximum storage volume; or
 - (c) a dam that does not impound a watercourse with a continuous flow of water, as determined by the Commission;

Any person or entity proposing to construct, enlarge, repair, or alter any dam or reservoir in reliance upon the provisions of Rule 3.2.B.2.a through c to exempt the project from the requirement to obtain written authorization must submit a notification of the planned project to MDEQ prior to the onset of construction. If, upon review of such notification, the Commission determines that the proposed dam poses a potential threat to downstream lives and property; the person or entity proposing the project may be required to comply with design and safety requirements contained in Rule 3.4 of this regulation. The Commission may enforce compliance with such design and safety standards in the interest of public

1 safety, notwithstanding the fact that written authorization may not be required for
2 the project. The pre-construction notification shall be submitted on a form prescribed by
3 the Permit Board.
4

- 5 (3) Prior written authorization is not required for recurring routine
6 maintenance activities including but not limited to mowing, grading or
7 filling ruts in roadways that cross the dam, filling ruts or repairing other
8 surface damage caused by vehicles or animals on the slopes, filling eroded
9 areas in the surface of an embankment to establish or maintain the turf, or
10 other similar activities.
11

12 C. Limitations
13

- 14 (1) The Board's receipt, comment, or approval of any design, construction, or
15 modification does not relieve the dam's owner, consulting engineer, consulting
16 Geologist, contractor, equipment supplier, attorney, or any other party of any
17 liabilities or responsibilities. Board and/or MDEQ approval of, or comment on,
18 any document does not establish or convey any liability or responsibility to the
19 Board and/or MDEQ, nor does such approval or comment represent any
20 assurances that the project will comply with any authorization requirements or
21 otherwise perform as intended by the owner, consulting engineer, consulting
22 Geologist, contractor, equipment supplier, attorney or other parties. The dam
23 owner and/or any person responsible for constructing, enlarging, repairing, or
24 altering a dam or reservoir shall comply with all conditions of the Board's
25 authorization to construct and ensure that all construction, operation, and
26 maintenance activities achieve such compliance. It is the responsibility of the dam
27 owner/applicant to obtain all other approvals, permits, clearances, easements,
28 and/or agreements for the construction and/or operation of the dam which may be
29 required by federal, state, or local law or regulation.
30
- 31 (2) Written authorizations by the Board expire one (1) year from the date of issuance
32 if work has not commenced on the project. If the work cannot be commenced
33 within the one-year period, the dam owner or any other person responsible for the
34 project must request a time extension from the Board, in writing, at least thirty
35 (30) days prior to the expiration of the one-year authorization period. The written
36 request shall provide an explanation of project delays and an estimated
37 construction commencement date. The Board will normally grant a time
38 extension, on proper application therefore, unless the Board determines that
39 circumstances surrounding the project have so changed that the construction and
40 operation of the dam as originally proposed would violate state or federal laws or
41 regulations. If the applicant allows the authorization to expire, a new application
42 must be submitted and approved prior to the onset of construction.
43
- 44 (3) The hazard classification assigned to a dam by the Board is subject to change
45 based on future developments that may increase the potential threat to life and
46 property in the event of a dam failure. The dam owner and/or any person

1 responsible for the construction and/or operation of a dam or reservoir assume all
2 risks associated with designing and constructing the dam to meet less than the
3 most stringent design criteria for high-hazard dams, including the risk of having
4 to make modifications to the dam to meet future heightened regulatory
5 requirements associated with a change in classification.
6

7 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.
8

9 *Rule 3.3 Application Content and Procedure.*
10

- 11 A. Any person or entity proposing to construct, enlarge, repair, or alter a dam or reservoir
12 shall submit either an application or a pre-construction notification (if the provisions of
13 Rule 3.2 B. apply) to the Board, on forms prescribed by the Board, at least thirty (30)
14 days prior to the anticipated commencement of construction. The submittal must have a
15 United States Geologic Survey (USGS) topographic map, or portion thereof, attached to
16 it showing the location of the proposed dam and reservoir including a clearly marked
17 access route to the site and marked locations and general descriptions of all buildings,
18 drainage structures or culverts, roads, railroads, bridges, and utility lines within two-miles
19 downstream of the site of the proposed dam.
20
- 21 B. If the provisions of Rule 3.2. B. do not apply, and the potential threat to life or potential
22 property damage that would result from failure of the proposed dam rises to the level of
23 significance characteristic of a high hazard or significant hazard classification, the
24 application package also must include two complete sets of design documents prepared in
25 accordance with the following requirements:
26
- 27 (1) Engineering drawings, specifications, and engineering reports shall be prepared,
28 signed, and sealed by a professional engineer.
29
 - 30 (2) Drawings shall be prepared to a scale that provides sufficient detail for review of
31 all project components.
32
 - 33 (3) Specifications shall include detailed descriptions of all work to be performed and
34 materials to be used in the construction.
35
 - 36 (4) Engineering reports shall include, but not be limited to, hydro logic calculations,
37 hydraulic calculations, geotechnical investigation, stability analysis, dewatering plan, and
38 provisions for internal drainage. Portions of the investigation at the site of the dam
39 and within the catchment area including, but not limited to, characterization of
40 geologic formations, assessment of groundwater conditions, and/or other geologic
41 conditions, factors, and processes which may impact the design of the dam may be
42 performed by a professional geologist. If a professional geologist produces documents in
43 support of the design of a project, the work products must be signed and sealed by the
44 professional geologist.
45

(5) If a professional geologist produces documents in support of the design of a project, the work products must be signed and sealed by the professional geologist.

C. The Board may require the applicant to supply any additional information necessary to evaluate an application, including the following:

(1) Whether the proposed dam will provide adequate safety for lives and property; and/or

(2) Whether the proposed dam will adversely affect riparian or other beneficial water uses, or plans for the proper utilization of the water resources of the state, and/or

(3) Any other information the Board deems appropriate.

Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

Rule 3.4 Design and Safety Requirements.

A. Any modification, alteration, enlargement, or major repair of an existing dam, whether requested by the owner or directed by the Commission, will be subject to the current design standards for the appropriate hazard classification as set forth in this regulation.

B. The owner of any existing dam, regardless of its condition, that poses an unacceptable threat to downstream lives or property may be required by the Commission either to bring the dam into compliance with current standards or take the dam out of service by draining the impoundment and removing the dam.

C. High Hazard dams must be capable of safely passing the runoff from a 100-year rainfall event through the principal spillway without activating the emergency spillway. The 100-year rainfall event is established by the National Weather Service and varies for different areas of the state. The proper design rainfall event for the county where the proposed dam is located can be obtained from MDEQ or from the nearest Natural Resources Conservation Service (NRCS) office. The runoff from one hundred percent (100%) of the Probable Maximum Precipitation (PMP), as defined in Rule 3.1.R. of this regulation, must be passed through the principal and emergency spillway and/or stored in the reservoir without overtopping the dam. The appropriate PMP for each county as obtained from the National Weather Service Bulletins and the rainfall distribution curve to be used in design routings are provided at Appendix A to this regulation. The Commission may require the owner or operator of a high hazard dam that does not meet this requirement to take remedial action to bring the dam into compliance with all current dam safety requirements or to breach the dam.

D. Within thirty (30) days after completion of a high hazard dam, the owner shall submit one (1) complete set of as-built plans and specifications to the Board. The submittal also shall include a letter signed by the professional engineer responsible for the project, certifying

1 that the dam was constructed in accordance with the Board approved plans and
2 specifications.
3

- 4 E. Significant hazard dams shall be designed to control the contributory watershed runoff
5 from at least fifty percent (50%) of the PMP without overtopping the dam. The owner
6 and any other persons responsible for the construction and operation of the dam shall
7 assume all risks for future costs to upgrade a dam in the event the hazard classification
8 changes. Applicants for authorization to construct significant hazard dams must comply
9 with the document submittal requirements set forth for high hazard dams in Rule 3.3.B
10 Within thirty (30) days after completion of a significant hazard dam, the owner shall
11 submit one (1) complete set of as-built plans and specifications to the Board accompanied
12 by a letter signed by the professional engineer responsible for the project, certifying that
13 the dam was constructed in accordance with the Board approved plans and specifications.
14
- 15 F. Low hazard dams shall be designed to control the contributory watershed runoff from at
16 least thirty-five percent (35%) of the PMP without overtopping the dam. The owner and
17 any other persons responsible for the construction and operation of the dam shall assume
18 all risks for future costs to upgrade a dam in the event the hazard classification changes.
19 Drawings to be submitted with the application for a low hazard dam shall include, but not
20 be limited to, a plan view of the dam (including all appurtenant works) and sections
21 through the dam at the centerline of the principal spillway and at the centerline of the
22 emergency spillway if it is located in the dam. The applicant shall provide written
23 notification of completion of the dam to the Board, within thirty (30) days after the dam
24 has been constructed, and either certify that the dam was constructed as shown in the
25 drawings previously submitted or submit new as-built drawings.
26
- 27 G. Because the size and type of pipe used for the principal spillway is one of the most
28 critical elements in the design of high hazard and significant hazard dams, the
29 professional engineer responsible for the project shall provide the Board with detailed
30 hydraulic, hydrologic, and structural computations supporting selection of the size and
31 type of pipe to be used. Detailed drawings and specifications relating to the installation of
32 the pipe shall include, but not be limited to, construction measures that adequately
33 address critical loading, bedding, backfill, compaction, and seepage precautions related to
34 installation of the pipe.
35
- 36 H. The Freeboard Hydrograph shall be used to determine the top of dam elevation and the
37 size and crest elevation of the emergency spillway for high hazard dams.
38
- 39 I. The soils in an earthen emergency spillway shall be capable of withstanding the water
40 velocities generated when the emergency spillway is activated without experiencing
41 excessive erosion.
42
- 43 J. Side slopes of all dams shall be a minimum of three horizontal to one vertical (3:1).
44
- 45 K. The owner or operator of a high hazard dam shall develop an Emergency Action Plan
46 (EAP) for the dam. The Board may direct the owner or operator of a significant hazard

1 dam to develop an Emergency Action Plan (EAP). The EAP shall be submitted to the
2 Board for approval. Once approved, a copy of the EAP will be maintained on file by the
3 Board. The owner or operator of the dam shall review the EAP on an annual basis to
4 assure that the information contained therein is current. Revisions to the EAP, as
5 necessary, shall be furnished to the Board and all other persons involved in the
6 implementation of the EAP. The owner or operator also shall be responsible for
7 conducting or coordinating periodic training and exercises to assure that personnel
8 involved in the implementation of the EAP are properly prepared to carry out their
9 responsibilities in the event of an emergency.

10
11 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

12
13 *Rule 3.5 General Conditions of Authorization.*

- 14
15 A. No materials shall be placed in a watercourse that will impede or block the natural flow
16 of water without prior written authorization from the Permit Board and other appropriate
17 federal, state, and local authorities. Additionally, any activity involving the discharge of
18 dredged or fill material or any other construction in any state waters that are also subject
19 to federal regulation under Section 404 of the 1972 Clean Water Act and/or Section 10 of
20 the Rivers and Harbors Appropriation Act of 1899 shall be conducted in accordance with
21 appropriate provisions of those federal statutes.
22
23 B. A permit or written authorization issued by the Permit Board does not convey any
24 property rights in either real or personal property, or any exclusive privileges, nor does it
25 authorize any injury to private property or any invasion of personal rights, nor any
26 infringement of federal, State, or local laws or regulations. No impoundment may be
27 constructed that will adversely affect riparian or other beneficial water uses or plans for
28 the proper utilization of state waters, or that will cause flooding of upstream property
29 unless the owner of the proposed dam has legally acquired the right to do so. The
30 Commission may prescribe minimum flow releases from any dam or reservoir, as
31 necessary, to protect downstream uses or otherwise prudently manage available surface
32 water.
33
34 C. Any dam that impounds a watercourse with a continuous flow shall be designed so that
35 the established minimum flow for the stream (as established by the Commission) is
36 maintained.
37
38 D. The owner and/or any person responsible for the construction, enlargement, repair, or
39 alteration of a dam on a watercourse lying, in whole or in part, within a levee district duly
40 constituted under the laws of the State of Mississippi, shall first obtain permission for the
41 work from the board of the levee district and shall provide proof of such permission with
42 the application to the Board.
43
44 E. Owners of earthen dams covered under this regulation shall establish and maintain a
45 healthy turf on the exposed faces of the dam to prevent erosion, and shall mow frequently

1 enough to prevent the encroachment of woody vegetation into the slopes of the dam
2 embankment.

3
4 F. Owners of High Hazard or Significant Hazard dams will be required to prohibit livestock
5 grazing on the dam in order to prevent damage to the turf and to prevent erosion
6 associated with establishment of animal trails.

7
8 G. In addition to the general conditions contained herein, the Board may place special
9 conditions on any authorization to construct or modify a dam.

10
11 H. The Commission may order the removal of a dam after it has been constructed or
12 modified when it is determined that the dam does not meet criteria and/or standards
13 established by the Board or the Commission and/or otherwise fails to adequately protect
14 lives and property.

15
16 I. A Surface Water Use Permit may also be required for any person to impound and store
17 water behind a dam.

18
19 J. The owners or operators of high hazard or significant hazard dams shall maintain records
20 and documents related to the original construction, recurring inspections, maintenance,
21 repairs, and alterations of the dam for the life of the project. Such records shall be made
22 available for inspection, or copies of such records furnished, upon request by the
23 Department.

24
25 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

26
27 *Rule 3.6 Inspection and Reporting.*

28
29 A. The owner and the operator of a dam shall be responsible for the proper operation and
30 maintenance as well as the structural integrity of the dam. In order to fulfill this
31 responsibility, the owner and/or the operator should perform a visual inspection of the
32 dam at least every sixty (60) days and after every major rainfall event over the watershed.
33 Any symptoms of dam failure observed during such visual inspections shall be
34 immediately reported to MDEQ.

35
36 B. The owner or operator of a high hazard or significant hazard dam shall have a detailed
37 inspection of the dam performed by a registered professional engineer with experience in
38 the design and construction of dams not later than March 1, 2006, and thereafter at such
39 recurring intervals as may be directed by the Department. A checklist form prescribed
40 and furnished by MDEQ shall be used to record observations during the inspection. The
41 report on findings of scheduled detailed inspections (including the completed MDEQ
42 prescribed checklist and an evaluation of the operation, maintenance, and the structural
43 integrity of the dam), bearing the signature and seal of the professional engineer
44 performing the inspection, shall be submitted to the Board within sixty (60) days after
45 completion of the inspection.

1 C MDEQ employees are authorized to make inspections at any time to evaluate the
2 operation, maintenance, and structural integrity of dams and reservoirs. The owner or
3 operator shall be required to perform, at the owner's or operator's expense, such work as
4 may be necessary to correct deficiencies in maintenance and operation or accomplish
5 necessary repairs identified by such inspections. If deficiencies are not corrected or
6 repairs are not made as specified in the inspection report, the Commission may order
7 owners or operators to take remedial action or remove the dam in order to safeguard lives
8 and property.
9

10 D. If, upon inspection, the Board or the Commission determines that:

- 11
- 12 (1) A dam was constructed without obtaining required prior written authorization
13 from the Permit Board;
14
- 15 (2) A dam was not constructed in accordance with the plans and specifications upon
16 which the Board based its written authorization;
17
- 18 (3) The dam may not provide adequate safety for lives and property;
19
- 20 (4) The dam may adversely affect riparian or other beneficial water uses, or plans for
21 the proper utilization of the water resources of the state; or
22
- 23 (5) The owner and/or operator of the dam has allowed the dam to deteriorate and
24 remain in an unsafe condition after having been ordered to make the necessary
25 repairs or modifications, the Board or the Commission may
26
- 27 (a) cause the dam to be removed or breached;
28
- 29 (b) require the owner and/or operator to take remedial action;
30
- 31 (c) revoke or modify any authorization pertaining thereto; or
32
- 33 (d) take other action the Commission deems appropriate, within its
34 jurisdiction.
35

36 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.
37

38 *Rule 3.7 Confidential Information.* Procedures for declaring submitted information
39 confidential and for agency handling of such information are found in Miss. Code Ann. Section
40 49-17-39, Section 51-3-44, and the Commission's Regulations Regarding the Review and
41 Reproduction of Public Records (Title 11, Part 1, Chapter 2).
42

43 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.
44

45 *Rule 3.8 Enforcement.*
46

1 A. Any person who allows a dam to deteriorate to an unsafe condition may be ordered to
2 make necessary repairs to restore it to a safe condition. If appropriate repairs are not
3 made, the Commission may take action to correct unsafe conditions, or to require
4 removal of the dam, and the Board may revoke or modify any written authorization
5 pertaining thereto.

6
7 B. Enforcement of this regulation shall be governed by Miss. Code Ann. Sections 49-17-31,
8 49-17-33, 49-17-35, 49-17-37, 49-17-41, and Sections 51-3-49, 51-3-51, and 51-3-55.

9
10 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

11
12 *Rule 3.9 Correspondence and Adequacy of Notice.*

13
14 A. General - All regulated dam owners shall inform MDEQ of any address changes, changes
15 in ownership, or changes in the designated agent of the owner within fifteen (15) days of
16 any such changes, and must readily accept all mail sent to them from the Commission,
17 MDEQ, or the Permit Board.

18
19 B. Registered or certified mail - Registered or Certified Mail sent with proper postage and to
20 the last address provided to MDEQ by the dam owner of record shall be considered
21 adequate notification of notice served if MDEQ is notified that the mail was delivered
22 and accepted or if the mail is returned as rejected or unclaimed by the addressee.

23
24 C. Refusal to accept mail - Refusal to accept mail from the Commission, the Permit Board,
25 the Department, or its designee, shall be considered a violation of this regulation.

26
27 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.

28
29 *Rule 3.10 Hearings and Appeals.*

30
31 Any person aggrieved by any initial action of the Permit Board to issue, deny, transfer, modify or
32 revoke a permit or written authorization may request an evidentiary hearing before the Permit
33 Board regarding the decision. Procedures for hearings and further appeals of Permit Board
34 decisions are set forth in Mississippi Code Annotated Section 49-17-29.

35
36 Source: Miss. Code Ann. §§ 51-3-1, et seq., 49-2-1, et seq. and 49-17-1, et seq.